Notice of Meeting

UNIVERSITY OF HAWAI‘I

BOARD OF REGENTS COMMITTEE ON PLANNING AND FACILITIES
Members: Regent Stanford Yuen (Chair), Michelle Tagorda (Vice Chair), and Regents Kudo, Putnam, and Wilson

Date: Thursday, February 9, 2017
Time: 9:00 a.m.
Place: University of Hawai‘i at Mānoa
Information Technology Building
1st Floor Conference Room 105A/B
2520 Correa Road
Honolulu, Hawai‘i 96822

AGENDA

I. Call Meeting to Order

II. Approval of Minutes of the November 3, 2016 Meeting

III. Public Comment Period for Agenda Items: All written testimony on agenda items received after posting of this agenda and up to 24 hours in advance of the meeting will be distributed to the board. Late testimony on agenda items will be distributed to the board within 24 hours of receipt. Registration for oral testimony on agenda items will be provided at the meeting location 15 minutes prior to the meeting and closed once the meeting begins. Written testimony may be submitted via US mail, email at bor@hawaii.edu, or facsimile at 956-5156. Oral testimony is limited to three (3) minutes.

IV. Agenda Items

A. For Information:
   1. FY17 Q2 Major projects update
   2. Capital Program Initiatives Briefing and eBuilder Demonstration

V. Adjournment
FY 2017 SECOND QUARTER CIP STATUS REPORT
(as of 12/31/16)

Planning and Facilities Committee Meeting
February 9, 2017
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Closed Projects

<table>
<thead>
<tr>
<th>Project 1</th>
<th>Project 2</th>
<th>Project 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>20</td>
<td>30</td>
<td>60</td>
</tr>
</tbody>
</table>

(25 projects completed as of 12/31/16)
## Table Summary – Construction Projects Over $5 Million

*Indicates changes from FY17 Q1 CIP Status Update Report (as of 9/30/16)

<table>
<thead>
<tr>
<th>Campus/Project</th>
<th>Original/Revised Completion Date</th>
<th>Original Construction Amount</th>
<th>Change Orders &amp; Percent Change</th>
<th>Reason for Extension/Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa – Coconut Island Utility Rehabilitation /Replacement</td>
<td>Nov. ’16 / Oct. ‘17</td>
<td>$6,397,204</td>
<td>$153,072 (2.4%)</td>
<td>Increase due to additional trenching and pull boxes for the telecom lines; Extension due to first hitting basalt and then extremely soft sand requiring a different drill, and additional work to install the telecom system.</td>
</tr>
<tr>
<td>Mānoa – Coconut Island Lilipuna Pier and Seawall Repair</td>
<td>Jan. ‘18 / Jan. ‘18</td>
<td>$5,999,000</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>Mānoa – Coconut Island Marine Laboratory Buildings 1 &amp; 2 Interior Renovation and General Repairs</td>
<td>Feb. ‘18 / Feb. ‘18</td>
<td>$21,019,747</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>Mānoa – Bilger Complex Air Conditioning System Upgrade</td>
<td>Nov. ’13 / June ’17</td>
<td>$5,737,790</td>
<td>$502,061* (8.8%)</td>
<td>Schedule conflicts with other projects and changes to minimize impact on occupants; non-conforming construction required reinstallation; unforeseen conditions; and change orders to address vibration issues.</td>
</tr>
<tr>
<td>Mānoa – Agricultural Science Facility Chill Water Plant, Reheating Water System, and HVAC Upgrade</td>
<td>Aug. ’15 / Apr. ’17</td>
<td>$5,270,742</td>
<td>$169,847* (3.2%)</td>
<td>New roof cover design required for cooling tower room; scheduling conflicts to minimize impact on occupants; and enhancements added during construction to improve system performance and energy efficiency</td>
</tr>
<tr>
<td>Mānoa – Elevator Modernization (Phase 3) – Various Buildings</td>
<td>Dec. ’16 / Jul. ’17</td>
<td>$9,162,000</td>
<td>$846,062* (9.2%)</td>
<td>Scheduling conflicts to minimize impact on occupants; unforeseen POST freight elevator shaft issue; modifications due to the adoption of the 2010 American Society of Mechanical Engineers code; and separate modernization of POST elevators.</td>
</tr>
<tr>
<td>Hilo – Daniel K. Inouye College of Pharmacy</td>
<td>May ’18 / May ’18</td>
<td>$31,300,000</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>Haw CC – Culinary Arts Building Phase 1A &amp; Health Science and Student Services Building Phase 1B</td>
<td>Mar. ’16 / Feb. ‘17</td>
<td>$22,670,172</td>
<td>$5,920,286* (26.1%)</td>
<td>Delay in permit approvals, archaeological monitoring, and the inclusion of PV system, food service equipment, and landscaping at UH’s request</td>
</tr>
<tr>
<td>Kap CC – Culinary Institute of the Pacific at Diamond Head (Phase I)</td>
<td>Oct. ’16 / Feb. ‘17</td>
<td>$25,058,110</td>
<td>$1,293,448* (5.2%)</td>
<td>Archaeological monitoring, scheduling and requirements; unforeseen conditions in Diamond Head Road; and conflict with underground utilities and building foundations</td>
</tr>
<tr>
<td>Mānoa – Law School Renovation &amp; Addition – Community Legal Outreach Center</td>
<td>Nov. ’17 / Nov. ’17</td>
<td>$7,372,000</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>LCC – Repair and Refurbish Theater</td>
<td>Sept. ’17 / Oct. ‘17</td>
<td>$10,256,335</td>
<td>None</td>
<td>Unforeseen site and interior conditions, additional abatement work, and extended campus relocation.</td>
</tr>
</tbody>
</table>
### Table Summary - Design Projects Over $1 Million

<table>
<thead>
<tr>
<th>Campus/Project</th>
<th>Revised/Original Completion Date</th>
<th>Original Design Amount</th>
<th>Change Orders &amp; Percent Change</th>
<th>Reason for Extension/Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa – Holmes Hall Renovation</td>
<td>Feb. ‘17 / Feb. ‘17</td>
<td>$1,514,992</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>CTAHR Due Diligence for Various Deferred Maintenance Improvements</td>
<td>Sept. ‘17 / Sept. ‘17</td>
<td>$1,231,316</td>
<td>None</td>
<td>N/A</td>
</tr>
<tr>
<td>Mānoa – Campus Infrastructure Trunklines, Easements, Water Catchment, Filtration and Reuse Plan, and LMP Phase I Infrastructure Design</td>
<td>Mar. ‘20 / Jan. ‘18</td>
<td>$1,490,403</td>
<td>None</td>
<td>Contract modification to support a high-level systemwide facilities strategy and a comprehensive vision for the development of Mānoa’s Campus &amp; an associated Long Range Development Plan and Plan Review Use permit update</td>
</tr>
</tbody>
</table>

### Table Summary - Upcoming Capital Improvement Projects

<table>
<thead>
<tr>
<th>Campus/Project</th>
<th>Estimated Construction Amount</th>
<th>Current Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa – Saunders Hall</td>
<td>$5m - $10m</td>
<td>Out to Bid</td>
</tr>
<tr>
<td>Mānoa – Hamilton Library Phase III</td>
<td>$5m - $10m</td>
<td>Out to Bid</td>
</tr>
</tbody>
</table>
Coconut Island Utility Rehabilitation/Replacement – Mānoa

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Frank Coluccio Construction Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Date of Project Completion</td>
<td>October 2017</td>
</tr>
<tr>
<td>Original Estimated Date of Project Completion</td>
<td>November 2016</td>
</tr>
<tr>
<td>Completion Level</td>
<td>54%</td>
</tr>
<tr>
<td>Original Construction Amount</td>
<td>$6,397,204</td>
</tr>
</tbody>
</table>

- Change Orders & Percent Change: $153,072 (2.4%)
- Reason for Extension/Increase:
  - Increase due to additional trenching and pull boxes for the telecom lines;
  - Extension due to first hitting basalt and then extremely soft sand requiring a different drill, and additional work to install the telecom system.

<table>
<thead>
<tr>
<th>Current Phase</th>
<th>Boring for the sewer line and telecom conduit is complete and both new utilities have been pulled through the boring. New sewer pumps have been installed and the line has been tied in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next Phase:</td>
<td>Preparing to drill the second boring</td>
</tr>
</tbody>
</table>

**Project Scope:** Coconut Island, located in Kāneʻohe Bay, is the home to the Hawaiʻi Institute of Marine Biology, a world-renown marine research institute of the School of Ocean and Earth Science and Technology at UH Mānoa. This project involves (1) horizontal directional drilling of a bore through rock roughly 40’ below Kāneʻohe Bay for the installation of new sewer and telecommunications lines between Coconut Island and Lilipuna Pier, and (2) replacing an existing sewer pump station and selected sewer pipes on Coconut Island. Approximately 2,000 cubic yards of soil and rock must be excavated and hauled from the site to create a level area for the drilling rig.
Coconut Island Lilipuna Pier and Seawall Repair – Mānoa

**Contractor:** Global Specialty Contractors, Inc.

**Estimated Date of Project Completion:** January 2018

**Original Estimated Date of Project Completion:** January 2018

**Completion Level:** 3%

**Original Construction Amount:** $5,999,000

**Change Orders & Percent Change:** None

**Reason for Extension/Increase:** None

**Current Phase:** Work to be commenced on February 1, 2017 per the contract. Consultant conducting investigation to determine any necessary, additional pier repairs (outside of contract) since the pier has further deteriorated since the start of the project.

**Next Phase:** Transplanting impacted coral/marine life and construction of temporary floating dock and plywood platform to prevent debris from falling in the water.

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**Project Scope:** Coconut Island, located in Kāneʻohe Bay, is the home to the Hawaiʻi Institute of Marine Biology, a world-renown marine research institute of the School of Ocean and Earth Science and Technology at UH Mānoa. This project involves the evaluation and repair of Lilipuna Pier, which serves as the transit point for shuttle service to and from Coconut Island. The existing concrete piles will be repaired, the landing deck will be replaced, and the precast planks of the last one third of the pier will also be removed and replaced. A temporary dock will be constructed to the right of the existing pier to maintain shuttle access to the island.

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*Aerial view of existing pier (lower left) and Coconut Island (upper right)*  
*Example of additional damage presently being assessed*
Coconut Island Marine Laboratory Buildings 1 & 2 Interior Renovation and General Repairs – Mānoa

Contractor: Frank Coluccio Construction Company
Estimated Date of Project Completion: February 2018
Original Estimated Date of Project Completion: February 2018
Completion Level: 0%
Original Construction Amount: $21,019,747
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Occupant relocation began on December 5, 2016 and is now complete. Site has been turned over to the contractor.
Next Phase: Installation of pollution and erosion control measures & demolition

Project Scope: Coconut Island, located in Kāne‘ohe Bay, is the home to the Hawai‘i Institute of Marine Biology, a world-renown marine research institute of the School of Ocean and Earth Science and Technology at UH Mānoa. This project involves the renovation of the interior of Marine Laboratory Buildings 1 & 2 to provide state of the art research and teaching laboratories, provide general repairs of the buildings (including replacing and upgrading mechanical, electrical, and architectural systems and structures), and perform significant structural retrofitting.
**Bilger Complex Air Conditioning System Upgrade – Mānoa**

**Contractor:** Civil Mechanical Contractor  
**Estimated Date of Project Completion:** June 2017  
**Original Estimated Date of Project Completion:** November 2013  
**Completion Level:** 94%  
**Original Construction Amount:** $5,737,790  
**Change Orders & Percent Change:** $502,061 (8.8%)  

**Reason for Extension/Increase:** Schedule conflicts with other projects affecting Bilger; Schedule changes to minimize impact on occupants; non-conforming construction required reinstallation; unforeseen conditions; and change orders to address vibration issues.

**Current Phase:** Waiting for change orders to be approved before work can restart  
**Next Phase:** Execute change orders and schedule/coordinate construction activities. Contractor to complete onsite change order work by March 31, 2017.

**Project Scope:** This project consists of demolition and lead and asbestos abatement. New work consists of installing new water/air cooled chillers, a cooling tower, chilled water and condenser water pumps, expansion tanks, exhaust fans, a condenser water/chilled water chemical feed system, air handling units, variable air volume terminal units, reheat coils, direct digital control system, piping, valves, vibration isolation, insulation, pipe supports, ductwork, plumbing, structural steel, electrical roofing, and painting HVAC commissioning.

- New air handler unit has been installed; piping is being pressure tested
- Installation of new sheet metal ducts and insulation in Bilger Hall 2nd floor offices
- Installation of hot water return piping on 5th floor of Bilger Addition
Agricultural Science Facility Chill Water Plant, Reheating Water System, and HVAC Upgrade - Mānoa

**Contractor:** American Piping & Boiler Co.

**Estimated Date of Project Completion:** April 2017

**Original Estimated Date of Project Completion:** August 2015

**Completion Level:** 99%

**Original Construction Amount:** $5,270,742

**Change Orders & Percent Change:** $169,847 (3.2%)

**Reason for Extension/Increase:**
New roof cover design required for cooling tower room; scheduling changes to minimize impact on occupants; and enhancements added during construction to improve system performance and energy efficiency

**Current Phase:**
Punchlist work, additional controls work and installation and programming of the DDC system is complete

**Next Phase:**
Training for facilities personnel in late January; contractor working on submission of closeout documents

**Project Scope:** The Agricultural Science Building is home to food services, classrooms, and teaching and research labs on the UH Mānoa campus. This project was designed to provide the University with a new energy efficient chiller plant and control systems for the air handling units. More specifically, the scope includes replacement of exhaust fans on the roof, chilled water pumps with variable frequency drives, induced draft crossflow cooling towers, air source heat pumps installed in the adjoining cooler tower building, an energy management control system with custom algorithms, and a solar hot water panel system on the roof to supply reheat water. The project was phased to minimize disruption and maintain redundancy for the HVAC system.

**Completed chiller room – 1st floor of Agricultural Science Building**
Approximate Dimensions: 80’ X 40’

**Hoisting of new cooling tower equipment through roof opening**

**New solar panels on roof for reheat water**
FY 2017 Second Quarter Capital Improvement Project Status Update (as of 12/31/16)

Mānoa Elevator Modernization (Phase 3) – Various Buildings

Contractor: Ralph S. Inouye Co., Ltd.

Estimated Date of Project Completion: July 2017

Original Estimated Date of Project Completion: December 2016

Completion Level: 92%

Original Construction Amount: $9,162,000

Change Orders & Percent Change: $846,062 (9.2%)

Reason for Extension/Increase: Scheduling conflicts to minimize impact on occupants; unforeseen POST freight elevator shaft issue; modifications due to the adoption of the 2010 American Society of Mechanical Engineers code; and separate modernization of POST elevators.

Current Phase: Contractor performing contract work. Only Watanabe, Hamilton Library and POST elevators remain.

Next Phase: Complete installation/programming of the DDC system; modernize the second of three elevators at POST

Project Scope: This project replaces various UH Mānoa elevator cabs, upgrades the existing elevator systems, machine rooms, and penthouses; and replaces elevator cabs if technically feasible. The modernization will comply with all codes and accessibility standards. Buildings impacted: POST (3 elevators), Watanabe Hall (1 elevator), Queen Lili‘uokalani Center (2 elevators), School of Architecture (1 elevator), Hamilton Library Phase II (4 elevators), Agricultural Science (2 elevators) and Kuykendall Hall (1 elevator). The scope of work also includes the installation of security access surveillance (card readers and cctv cameras) in the elevator lobbies and cabs.

Newly installed POST freight elevator interior cab finishes

Newly installed elevator brakes for Watanabe Hall freight elevator

Newly installed POST Elevator 2 equipment in machine room
Daniel K. Inouye College of Pharmacy – Hilo

Contractor: Isemoto Contracting Co., Ltd.
Estimated Date of Project Completion: May 2018
Original Estimated Date of Project Completion: May 2018
Completion Level: 7%
Original Construction Amount: $31,300,000
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Mass excavation is ongoing
Next Phase: Foundation work

Project Scope: This project involves a new pharmacy facility. Level 1 consists of lecture rooms, breakout rooms, a student lounge, and restrooms. Level 2 includes an administration suite with counsel offices, administrative offices, two biolabs, faculty offices, a Medication Therapy Management suite, a mock pharmacy, a resource center, two seminar rooms, consult rooms, a compound lab, two sim labs, an IV Institutional Pharmacy lab and restrooms. Site development includes new surface parking stalls, landscaping and site lighting.
## Culinary Arts Building Phase 1A & Health Science and Student Services Building Phase 1B

**Hawai‘i Community College, Pālamanui Campus**

<table>
<thead>
<tr>
<th>Contractor:</th>
<th>F&amp;H Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Date of Project Completion:</td>
<td>February 2017</td>
</tr>
<tr>
<td>Original Estimated Date of Project Completion:</td>
<td>March 2016</td>
</tr>
<tr>
<td>Completion Level:</td>
<td>96%</td>
</tr>
<tr>
<td>Original Construction Amount:</td>
<td>$22,670,172</td>
</tr>
<tr>
<td>Change Orders &amp; Percent Change:</td>
<td>$5,920,286 (26.1%)</td>
</tr>
<tr>
<td>Reason for Extension/Increase:</td>
<td>Delay in permit approvals, archaeological monitoring, and the inclusion of PV system, food service equipment, and landscaping at UH’s request</td>
</tr>
</tbody>
</table>

### Current Phase:
- PV system and recirculating sand filter liner for wastewater treatment system being installed

### Next Phase:
- Inspections, certificate of occupancy, closeout and project acceptance

**Project Scope:** This project involves construction of approximately 24,000 square feet of new buildings for the University of Hawai‘i System, Hawai‘i Community College, Pālamanui Campus located in Kona, Hawai‘i. These buildings will house functions servicing the Culinary Arts Program, Nursing and Allied Health Program and Student Services Administration. The buildings will include new educational classrooms, learning kitchens, science laboratories and related support services.

*Installation of recirculating sand filter liner for wastewater treatment system*

*Installation of Photovoltaic System*
Culinary Institute of the Pacific at Diamond Head (Phase I) – Kapiʻolani CC

Contractor: Jacobsen Construction Co.
Estimated Date of Project Completion: February 2017
Original Estimated Date of Project Completion: October 2016
Completion Level: 92%
Original Construction Amount: $25,058,110
Change Orders & Percent Change: $1,293,448 (5.2%)
Reason for Extension/Increase: Archaeological monitoring, scheduling and requirements; unforeseen conditions in Diamond Head Road; and conflict with underground utilities and building foundations

Current Phase: Building interior (glazing, ceramic tile, paint and flooring), landscaping, and sidewalk & paving work in progress

Next Phase: Startup, commissioning, inspections, punchlist, certificate of occupancy, substantial completion, closeout, and project acceptance

Project Scope: This project at the former U.S. Army Fort Ruger Cannon Club site on the northern slope of Diamond Head Monument is essential to the expansion of the culinary arts program at Kapiʻolani Community College. It supports a Bachelor of Applied Science in Culinary Management and an advanced professional certificate to provide advanced training in Asian, Pacific and Hawaiian cuisine. Phase 1 includes four single story buildings, an outdoor cooking area, landscaping, two parking lots and utility infrastructure. The main building will house two laboratories, one advanced multi-function laboratory and one advanced Asian cuisine laboratory. Other buildings that will be constructed in the first phase are the locker room/restrooms/student lounge building, storage building, and support (central plant) building.
Law School Renovation & Addition: Community Legal Outreach Center – Mānoa

Contractor: F&H Construction
Estimated Date of Project Completion: November 2017
Original Estimated Date of Project Completion: November 2017
Completion Level: 3%
Original Construction Amount: $7,372,000
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Install building and column footings
Next Phase: Ground floor slab

Project Scope: The Community Legal Outreach Center at the William S. Richardson School of Law on the UH Mānoa campus will serve as a space for the growing clinical service offered by law school students and faculty. Currently, students provide thousands of hours of free legal help to some of Hawai‘i’s most vulnerable people, including the elderly, troubled and incarcerated youth, veterans, and families living at or near poverty levels. The building will also provide much-needed space to develop practical trial and advocacy skills. The project includes partial demolition and reconfiguration of the existing parking and site features at the UH Mānoa Zone 17 parking lot outside of the Law School and construction of a new, 6,000 square foot, two-story precast concrete building and connecting bridge to the existing law school.

Building and column formwork and rebar installation
Elevator pit formwork and rebar installation
**Repair and Refurbish Theater – Leeward CC**

**Contractor:** MEI Corporation  
**Estimated Date of Project Completion:** October 2017  
**Original Estimated Date of Project Completion:** September 2017  
**Completion Level:** 20%  
**Original Construction Amount:** $10,256,335  
**Change Orders & Percent Change:** None  
**Reason for Extension/Increase:** Unforeseen site and interior conditions, additional abatement work, and extended campus relocation.

**Current Phase:** Interior abatement and demolition work is ongoing; encountered unforeseen conditions during concrete demolition and excavation work at 1<sup>st</sup> and 2<sup>nd</sup> floor exterior locations

**Next Phase:** Exterior utility and site work including concrete installation and electrical and plumbing rough-ins

**Project Scope:** This project involves remedying the water intrusion into the building by improving the exterior drainage, doing landscaping improvements, installing continuous canopies to the side entries, creating an open and inviting exterior foyer to the main entry by relocating the ticket office, renovating the restrooms and including a concession area. It also involves upgrading the stage equipment (rigging and drapes, orchestra pit lift system, stage trap panel system and related items) and the main seating and stage area throughout the Theater. The auditorium seating, stage and dance rooms wood flooring, carpet and VCT flooring, painting, ceiling, and lighting, will also be replaced. The project will also retrofit the existing fire alarm system and mechanical system, abatement of hazardous materials at rooms/areas being renovated, meeting DCAB requirements, and making improvements to the theater lighting system and sound system.
Administration & Allied Health Facility – West O‘ahu

Contractor: Swinerton Builders Hawai‘i
Estimated Date of Project Completion: September 2018
Original Estimated Date of Project Completion: May 2018
Completion Level: 0%
Original Construction Amount: $29,941,000
Change Orders & Percent Change: None
Reason for Extension/Increase: Project delayed due to protest
Current Phase: Mobilization, including construction barricades, erosion controls, jobsite trailers, construction haul route and temporary construction parking
Next Phase: Clear and grub, install new underground chilled water line and utilities, mass grading

Project Scope: The project consists of an approximately 43,442 square foot facility to house Administration and Allied Health programs at the University of Hawai‘i at West O‘ahu Campus. The new facility will include offices for UHWO administration and faculty, classrooms, laboratories, and other related spaces.

Artist renderings of the Administration and Allied Health Facility at UH West O‘ahu
Life Sciences Building – Mānoa

Contractor: Layton Construction
Estimated Date of Project Completion: Spring 2019
Original Estimated Date of Project Completion: Spring 2019
Completion Level: 0%
Original Construction Amount: $49,500,000
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Contract execution in progress
Next Phase: Design developing and permitting

Project Scope: This design-build project for a new Life Sciences Building will be developed at the site of Henke Hall and will support multiple programs like botany, PBRC, biology and microbiology. As the first of a three-phase Mānoa Mini Master Plan, this project will also provide surge space to allow for the redevelopment of the Snyder Hall site and subsequent redevelopment of Kuykendall Hall.
Kennedy Theatre: General Repairs and Code Compliance – Mānoa

<table>
<thead>
<tr>
<th>Contractor:</th>
<th>RSI Roofing and Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Date of Project Completion:</td>
<td>July 2017</td>
</tr>
<tr>
<td>Original Estimated Date of Project Completion:</td>
<td>July 2017</td>
</tr>
<tr>
<td>Completion Level:</td>
<td>0%</td>
</tr>
<tr>
<td>Original Construction Amount:</td>
<td>$5,491,500</td>
</tr>
<tr>
<td>Change Orders &amp; Percent Change:</td>
<td>None</td>
</tr>
<tr>
<td>Reason for Extension/Increase:</td>
<td>None</td>
</tr>
<tr>
<td>Current Phase:</td>
<td>Preparing for abatement and demolition</td>
</tr>
<tr>
<td>Next Phase:</td>
<td>Hazardous material abatement and demolition, followed by mechanical ductwork</td>
</tr>
</tbody>
</table>

**Project Scope:** Kennedy Theatre is the flagship performing arts center on the UH Mānoa Campus. The need for repairs and maintenance is long overdue as the theater was built in 1963 and no interior work has been done in over 50 years. Parts of the facility are OSHA, building code and ADA non-compliant – including the catwalk system over the Ernst Lab Theater. This project involves, among other things, replacing the existing sand bag rigging system at the Lab Theater with a new system, replacing the Main Theater theatrical dimming system and Main Stage curtains, replacing the catwalk system at the Lab Theater to meet OSHA requirements, replacing the finished floor at the Lab Theater and Main Stage with a floor suitable for dance performances, installing a pre-manufactured dust collection booth at the Scene shop, and installing a safety cage around the existing 80-foot high spiral staircase for fall protection.

- Catwalk above auditorium. Existing plywood decking will be replaced with fire retardant plywood. Wooden mid-rails will be replaced with metal rail system.
- Lower portion of existing spiral stair system. Metal cage for entire height of stairs (80’) will be built for fall protection.
- Disconnected electrical objects to be discarded by the abatement/demolition subcontractor.
Holmes Hall Renovation - Mānoa

Design Consultant: John Hara Associates
Estimated Date of Project Completion: February 2017
Original Estimated Date of Project Completion: February 2017
Completion Level: 50%
Original Design Amount: $1,514,992
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Schematic Design
Next Phase: Pre-Design (Programming) – Re-evaluation

Project Scope: The project involves the renovation of Holmes Hall (approximately 133,350 gross square feet) to transform it into an innovative, state-of-the-art facility to accommodate instructional, research, student and administrative workspaces for the College of Engineering and the related UHM engineering community. The project also intends to add approximately 27,000 square feet of new research laboratories and supporting workspaces for graduate students and researchers.

Holmes Hall fourth floor plans showing flexible lab space and transparent interior atriums partially filled with new classrooms and meeting rooms
CTAHR Due Diligence for Various Deferred Maintenance Improvements

Design Consultant: INK Architects
Estimated Date of Project Completion: September 2017
Original Estimated Date of Project Completion: September 2017
Completion Level: 42%
Original Design Amount: $1,231,316
Change Orders & Percent Change: None
Reason for Extension/Increase: None
Current Phase: Program/Planning (Project Development Report)
Next Phase: Request design and construction funds to address the priorities identified by the due diligence study

Project Scope: The UH Mānoa's College of Tropical Agriculture and Human Resources (CTAHR) has twenty-seven sites statewide as part of its outreach, research, and experimentation programs. All of these sites have facilities that are currently in use by its occupants and are in various states of disrepair or require upgrades for improved functionality and/or life safety and accessibility code compliance. The goals of the due diligence study are as follows: Document general property information and code requirements, identify programmatic needs and goals, assess and document the existing conditions exhibited at the project site, assess and document the existing conditions exhibited at each building on the property, and provide recommendations for demolition, repair, maintenance, accessibility, life safety, and hazardous materials condition. As the due-diligence contract progresses and the facilities are assessed, design contracts will be executed to engage in schematic design, which will lead to construction.

Kaua‘i Agriculture Research Center (left) and Pearl City Research Center (right) Due Diligence Studies showing the areas and buildings. Each Due Diligence Study evaluates the condition of each of the buildings and provides detailed photos and a description.
Campus Infrastructure Trunklines, Easements, Water Catchment, Filtration and Reuse Plan, and LMP Phase I

Infrastructure Design – Mānoa

<table>
<thead>
<tr>
<th>Design Consultant:</th>
<th>WRNS Studio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Date of Project Completion:</td>
<td>March 2020</td>
</tr>
<tr>
<td>Original Estimated Date of Project Completion:</td>
<td>January 2018</td>
</tr>
<tr>
<td>Completion Level:</td>
<td>58%</td>
</tr>
<tr>
<td>Original Design Amount:</td>
<td>$1,490,403</td>
</tr>
<tr>
<td>Change Orders &amp; Percent Change:</td>
<td>None</td>
</tr>
<tr>
<td>Reason for Extension/Increase:</td>
<td>Contract modification to support Long Range Development Planning/Plan Review Use permit update</td>
</tr>
</tbody>
</table>

Current Phase: Schematic Design of infrastructure and water reuse design is complete

Next Phase: Completion of Academic Programming and Space Utilization studies for development of Mānoa's Integrated Academic and Facilities Plan, which will inform this project

**Project Scope:** This project involves the design of an infrastructure trunkline and a water catchment and reuse system. If constructed, this project would organize and update campus utilities into an interconnected network under major open space corridors for predictable and available access during future construction, maximize areas unrestricted by utility easements for future developments, and increase the capacity of our campus drainage system to convey 100 year storms. The water catchment and reuse system is anticipated to redirect 95% of rainfall toward rain gardens and recycled water cisterns which, when combined with 600,000 gallons of water scalped from sewer, could offset 73% of potable water and reduce the volume of storm drainage to be conveyed off site.
Upcoming CIP: Saunders Hall – Mānoa

**Estimated Construction Amount:** $5m – $10m
**Current Phase:** Out to Bid

**Project Scope:** This project involves repair and reroofing, including repairing and recoating exterior surfaces, repairing spalling concrete, replacing louvers and railings, replacing roofing and replacing mechanical and electrical equipment.

*Saunders exterior showing concrete spalling*
Upcoming CIP: Hamilton Library (Phase III) – Mānoa

Estimated Construction Amount: $5m – $10m
Current Phase: Out to Bid

Project Scope: Hamilton Library is the main library on the UH Mānoa campus. This project involves upgrading the central chiller plant, air distribution system, reheat system and the direct digital control systems. The project also involves new electrical work, chemical abatement, roof thermography study, roof repairs and replacement, and testing of the existing fire alarm system.

Existing air handlers are in poor condition and badly corroded

Three existing cooling towers in poor condition will be replaced with two new cooling towers
### Projects Pending Close-Out

<table>
<thead>
<tr>
<th>Campus/Project</th>
<th>Original/Revised Completion Date</th>
<th>Original Construction Amount</th>
<th>Change Orders &amp; Percent Change</th>
<th>Reason for Extension/Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa – Clarence T.C. Ching Complex, Construction of New Athletics Complex</td>
<td>July ‘13 / Mar. ’17</td>
<td>$12,393,000</td>
<td>$2,294,625 (18.5%)</td>
<td>Unforeseen conditions; C&amp;C comments and owner changes; and the design, redesign, negotiation and execution of change orders</td>
</tr>
<tr>
<td>Mānoa – Biomedical Sciences Building, R/R HVAC Equipment, Reheat Water System, Building Air Balance &amp; Controls</td>
<td>Aug. ‘13 / May ’17</td>
<td>$5,324,800</td>
<td>$57,895 (1.1%)</td>
<td>Scheduling conflicts with other projects affecting Biomed; revision of type of air valves used in the air handler systems; and unforeseen conditions including deteriorating reheat hot water piping insulation</td>
</tr>
<tr>
<td>Mānoa – Various Buildings, Elevator Modernization, Phase I</td>
<td>April ‘14 / Mar. ’17</td>
<td>$6,772,960</td>
<td>$180,339 (2.7%)</td>
<td>Unforeseen conditions resulting in waterproofing repairs; scheduling changes to minimize impacts on occupants; and electrical revisions and modifications to elevator installations.</td>
</tr>
<tr>
<td>Mānoa – Sakamaki Hall, Renovation of 1st &amp; 2nd Floors</td>
<td>Dec. ‘13 / Mar. ’17</td>
<td>$6,251,950</td>
<td>$194,999 (3.1%)</td>
<td>Unforeseen conditions; scheduling changes to minimize impacts on occupants; owner changes; landscape design changes; and landscape redesign installation because the soil did not meet specifications. Waiting for architect to review and approve as-built drawings.</td>
</tr>
<tr>
<td>Mānoa – Snyder &amp; Edmonson Halls, New Elevators &amp; Stairway</td>
<td>April ‘14 / Mar. ’17</td>
<td>$5,133,900</td>
<td>$970,625 (18.9%)</td>
<td>Unforeseen underground electrical utilities; adjustments to foundation depth requirements; and change in manufacturer of pedestrian membrane waterproof coating due to high moisture and humidity levels. Waiting for completion of closing documents.</td>
</tr>
<tr>
<td>Mānoa – Various Buildings, Elevator Modernization, Phase II</td>
<td>Feb. ‘16 / May ’17</td>
<td>$10,321,500</td>
<td>$1,120,296 (10.9%)</td>
<td>Decision to modernize Biomedical Science’s elevator’s separately; restricted access to freight elevator; scheduling conflicts to minimize impacts on occupants; and modifications due to the adoption of the 2010 American Society of Mechanical Engineers code</td>
</tr>
<tr>
<td>Mānoa – Hamilton Library, Phase II</td>
<td>Aug ‘13 / Apr. ’17</td>
<td>$5,901,788</td>
<td>$449,607 (7.6%)</td>
<td>Unforeseen conditions including replacement of light fixtures on the second floor; extensive change order negotiations and revisions; and schedule conflicts with other projects affecting Hamilton</td>
</tr>
<tr>
<td>Mānoa – Gartley Hall, Structural Retrofit &amp; Renovation</td>
<td>May ‘13 / Mar. ’17</td>
<td>$12,425,781</td>
<td>$1,859,903 (15.0%)</td>
<td>Unforeseen site conditions relating to the micropile/underpinning foundation and waterproofing work</td>
</tr>
<tr>
<td>Hawai’i CC – Hale Aloha Renovation</td>
<td>Oct. ‘16 / Oct. ’16</td>
<td>$7,629,500</td>
<td>$282,390 (3.7%)</td>
<td>In litigation</td>
</tr>
<tr>
<td>Honolulu CC – Building 8807, Upgrade Infrastructure</td>
<td>May ‘14 / Nov. ’16</td>
<td>$8,609,000</td>
<td>$2,227,220 (25.9%)</td>
<td>Plans were resubmitted to DPP due to extensive revisions and issues with the elevators and emergency generator operations</td>
</tr>
<tr>
<td>Hilo – Campus Security &amp; Emergency Operations Center</td>
<td>Oct. ’15 / Sept. ’16</td>
<td>$4,589,000</td>
<td>$486,005 (10.6%)</td>
<td>Correction to the specifications for wind speed resistance of the roof system; and the University driven schedule and sequencing for the construction and migration of the new Structured Cabling across 28 campus structures</td>
</tr>
</tbody>
</table>
## Closed Projects

<table>
<thead>
<tr>
<th>Campus/Project</th>
<th>Original/Revised Completion Date</th>
<th>Original Construction Amount</th>
<th>Change Order(s) &amp; Percent Change</th>
<th>Reason for Extension/Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mānoa - Warrior Recreation Center, Campus Center Renovation &amp; Expansion, Phase IIB</td>
<td>Dec. ‘12 / Mar. ‘14</td>
<td>$27,376,922</td>
<td>$6,220,911 (22.7%)</td>
<td>Unforeseen site conditions such as unexpected underground utilities and soil conditions, additional University requests, design omissions and settlement agreement</td>
</tr>
</tbody>
</table>
Capital Projects Initiatives Briefing
Planning and Facilities Committee
February 9, 2017
Each project was done in a vacuum with no system in place to oversee the entire capital program
Solution: eBuilder

- Adopted eBuilder
- Electronically drives all work processes on the critical path for an on-time & on-budget project schedule
- “Ball in Court” visibility
Our challenge . . .

Organizationally inefficient

Planning

Project Management

Fiscal

Facilities Maintenance

Procurement
Solution:
Consolidated Unit Under VPA

Construction Management
Planning & Programming
Budget & Fiscal
Procurement & Contracts Office
Architects & Engineers

NO ADDITIONAL FUNDS
Our challenge . . .

Paper intensive and manual procurement process

http://hawaii.edu/oprpm/
Solution:
HePS (Hawai‘i eProcurement System)

Procurement process is handled all electronically

Delivery Address:
Name 1: University of Hawaii at Manoa
Name 2: Facilities Management Office
Name 3:
Contact Email: kevi@hawaii.edu

Address 1: 2002 East West Road
Address 2: Room A5
City, State & Zip: Honolulu, HI 96822

Contact Person: Paula Younghing
Phone Nbr: 956-9572

Email: pasyou@hawaii.edu
Fax Nbr:

Buyer: DAVID HA
Phone Nbr: 808-956-9326

Email: davidha@hawaii.edu
Fax Nbr:

Click on the filename link below to view the file.

<table>
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<th>Description</th>
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<td>General Provisions for Construction</td>
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<td>Exhibit A - Surely Bid Bond</td>
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SPECIAL INSTRUCTIONS

OFFER DEEMED FIRM: Submission of an electronic response to the University of Hawaii constitutes and shall be deemed an offer to sell the specified goods and/or services to the University of Hawaii at the price shown in the response and under the University of Hawaii’s Terms and Conditions.
Exclusive “Design-Bid-Build” methodology

**Design-Bid-Build**
- 2-step
- 4 year
- Process
  (minimum)

**Design-Build**
- 1-Step
- 1-Year
- Process
  (average)

**IDIQ**
- 1-Step
- 3 month
- process
  (average)
Summary

• Perform root cause analyses to improve project completion time and maximization of resources
• Incorporate technological solutions to improve work processes
• Utilize data to establish metrics and measurements
• Minimize manual, paper intensive processes