DESIGN-BUILD DELIVERY FOR NEW HAWAII STATE HOSPITAL

DESIGN-BUILD INSTITUTE OF AMERICA
Western Pacific Region
Friday, October 26, 2018
11:30 am – 1:00 pm
Plaza Club, Honolulu, Hawaii

Featured Speakers

Eric Nishimoto
Project Manager
HAWAII DEPARTMENT OF ADMINISTRATION AND GENERAL SERVICES

Katie MacNeil
Principal, AIA, LEED AP
G70

SPONSORED BY:

TITLE SPONSOR

HENSEL PHELPS

Plan. Build. Manage.

AGENDA

- **11:30 am** **Lunch**
- **12:00 pm-1:00 pm** **Program/Q&A**

DBIA MISSION

- DBIA promotes the value of design-build project delivery and teaches the effective integration of design and construction services to ensure success for owners and design and construction practitioners.

DBIA VISION

- DBIA will be the industry's preeminent resource for leadership, education, objective expertise and best practices for the successful integrated delivery of capital projects.

DBIA INFORMATION & TRAINING

- **The Design-Build Manual of Practice –** a 3 volume comprehensive reference manual for owners and practitioners and it is free to DBIA members
- **Designated Design-Build Professional Certification –** intended to recognize acceptable standard of experience and knowledge in DB
- **Online Learning** - provides 24/7 access to best practices and emerging trends in DB
- **Educational Courses –** Fundamentals of project delivery; Principles of DB; Contracts and risk management; Post-award processes; Design management fundamentals

Information on membership available - see check-in table for brochure.

Potential DBIA CONTINUING EDUCATION CREDIT

ATTENTION ALL ATTENDEES:

Did you check in at the check in table?

- Be sure to check in **now** if you didn't when you arrived.
- No check in = No DBIA Continuing Education Credit

This program has **not** yet been approved for credits but is scheduled to be submitted. If DBIA National approves the request for continued education credit, the information will be posted on our website (*Education tab*). **If** approved, those that registered, attended and checked in (required) will receive the DBIA Continuing Education Credit.

- To qualify for the credit you must **check in (required)**.
- It is the responsibility of the attendee to maintain their own record of attendance.

Credit Certificate

1. After completion of check in go to the registration page online
2. Click "already registered"
3. Enter your email address and confirmation number, click "OK"
4. The DBIA Credit Certificate button will allow you to download and print your own certificate at your convenience.

DBIA YOUNG PROFESSIONALS

DBIA is committed to creating a clear path to success for emerging design-build professionals by providing a seamless transition from student engagement to industry involvement. In addition to deeply discounted membership ($75), young professionals will enjoy the discounted member rate for all DBIA conferences and educational programs.

The YP program is designed to:

- Help Young Professionals build a community of peers;
- Provide a path to become DBIA™ certified;
- Provide career building and leadership development; and
- Provide mentoring opportunities

yp
design-build
young professionals

You can join as an individual for $75, or if you work for an IP Member, you can ask them to make you one of their two free YP members.

For further information regarding WPR Young Professionals please contact Matthew Backhaus at MBackhaus@henselphelps.com

DBIA-WPR CALL FOR VOLUNTEERS

The Western Pacific Region needs you!

Please let us know if you are interested participation on one or more of our volunteer committees. We welcome your participation.

- Legislative Committee
- Public Relations Committee
- Awards Committee
- Membership Committee
- Owners Council (must be a city, public agency or a project owner)
- Programs Committee
- Education Committee
- Golf Committee
- Water/Wastewater Committee
- Regional Conference Committee
- Young Professionals Committee
- And more on our website: www.dbiawpr.org

SAVE THE DATE (upcoming events)

- DBIA National Conference
  November 7-9, 2018- Ernest Morial Convention Center, New Orleans

- WPR Annual Membership Meeting
  November 29, 2018- Huntington Beach, CA
  (register via www.dbiaWPR.org)

- 2019 Certification Workshop
  April 18 to April 20, 2019 – KYA Design Group office, Honolulu

- 2019 WPR Annual Regional Conference
  May 15-17, 2019 Napa, CA

2018 DBIA-WPR Board of Directors

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Visit us at www.DBIAwpr.org

Design-Build Institute of America
Hawaii Chapter

Lunch Program
October 26, 2018

DAGS Perspective and Briefing

On

Design-Build

Eric Nishimoto

Project Management Branch Chief

DAGS – Public Works Division

Discussion Topics:

- Why Design-Build
- Selection Process
- Design-Build Advantage or Disadvantage?
- Lessons Learned
- Hawaii State Hospital Update

Why Design-Build

- Typical Reasons You Hear:
  - Faster
  - Less cost
  - No change orders
  - Single point of responsibility for the project
  - Design-Builder knows how to design and construct your project. They have or are the experts and know best.

- Actual Reasons Why:
  - Pre-Qualified team of design professional and construction contractors
  - Can allow creativity of design and contractor to bring project in budget, on schedule and meet project owners needs/requirements
  - Early fixed price
  - Single point of contractual responsibility for the design and construction
  - Administrative initiative to use the Design-Build process

Why Design-Build

- Past and Current DAGS Projects
  - UH Special Events Arena (Stan Sheriff Center) -1991
    - Qualified team of design professional and construction contractors
    - Allowed creativity of design and contractor to bring project in budget, on schedule and meet the needs/requirements of UH Athletic Department
    - Early fixed price
    - Single point of responsibility for the design and construction
    - Fast
  - Nanakuli Elementary School 8-Classroom Building -1994
  - Princess Nahienaena Elementary School 8-Classroom Building -1994
    - Legislative mandate to do Design-Build pilot and report to the legislature

Why Design-Build

- Past and Current DAGS Projects Continued:
  - Hawaii Convention Center – 1995
    - Qualified team of design professional and construction contractors
    - Allowed creativity of design and contractor to bring project in budget, on schedule and meet the needs/requirements of Convention Center Authority
    - Single point of responsibility for the design and construction
    - Faster
  - New Correctional Facility at Halawa (OCCC Replacement) – 2002

    (Proposal received and evaluated but did not proceed to award because it did not meet cost expectations)
    - Design-Builder knows how to design and construct your project. They have or are experts
    - Less cost – It was promoted and believed that the State would not have to pay any more for both operating and CIP costs than it's current operating cost at the time due to efficient design of the new facility.
    - No change orders
    - Faster
    - Single point of responsibility for the Project
  - Various school roofs, painting, & renovation projects using the Performance Information Procurement System, a.k.a. "PIPS"
    - Performance based; quality for price paid

Why Design-Build

- Past and Current DAGS Projects Continued:
  - Keaukaha Military Reservation, Joint Military Center, Phase 1 – 2008
    - Federal funding required Design-Build
    - Early price commitment award to secure Federal Funding
  - Hawaii State Hospital, New Patient Facility – On-going
    - Administrative initiative to do Design-Build with the schedule as a primary consideration
    - Project started in early 2015

Selection Process

- Many methods can be applied
  - UH Special Events Arena (Stan Sheriff Center) -1991
    - Qualified Shortlist
    - Award/selection to lowest cost per quality point if within the specified $30,500,000 budget limit
    - If offer was over the budget limit, award/selection would be made to lowest price offered by any offeror deemed to have met or exceeded the technical design criteria
  - Nanakuli Elementary School 8 Classroom – 1994
  - Princess Nahienaena Elem. School 8 Classroom – 1994
    - Qualified Shortlist up to 6 Design-Build Teams
    - Qualification/Technical review: to determine if qualified to proceed to pricing
    - Pricing by Design-Build Teams deemed to have met or exceeded the technical design criteria
    - Award to lowest price offered

Selection Process

- Many methods
  - Hawaii Convention Center
    - Qualified shortlist up to 5 Design-Build teams
    - Technical Evaluation – 75% of the total quality points
    - Design Evaluation – 25% of the total quality points
    - Price set at $200 million
  - New Correctional Facility at Halawa (OCCC Replacement)
    - No qualification step to shortlist
    - Technical Committee
      - Quality evaluation points
    - Executive Selection Board – Evaluation in its relative importance of the following to determine the best or greatest value:
      - Findings from the Technical Committee
      - Price proposal
      - Ability to address environmental and community concerns

Selection Process

- Keaukaha Military Reservation, Joint Military Center, Phase 1
  - Qualification shortlist up to 5 Design-Build Teams by Evaluation Committee
  - Selection Committee:
    - Evaluation criteria points assigned, including price
    - Highest aggregate points recommended for award
- Hawaii State Hospital – New Patient Facility
  - Qualification shortlist to 3 Design-Build Teams
  - Evaluation Committee evaluated factors and criteria, including price – points assigned:
  - Awarded to “best value” proposal – Highest points

Design-Build Advantage or Disadvantage?

(Relative to Design-Bid-Build/Low Bid)

- Faster
- Costs less
- Better product
- No change orders
- Control over design
- Qualifications based
- Creative design solution
- Administrative resources
- Single point of responsibility
- Price can be determined earlier

Lessons Learned

- If you put out a unrealistic solicitation, you may not get good competitive responses.
- Address each Design-Build project independently. Customize and don't standardize.
- Conduct adequate research and investigations to determine the requirements in an unambiguous manner.
- Know your costs. If your expectations are unrealistic for the budget amount, you may not get good competitive responses.
- Know your own limitations and be sure appropriate resources are available to do the Design-Build project. Design-Build requires significantly more resources than the Design-Bid-Build method.
- Contract time should be reasonable not just for the Design-Build Contractor, but also for you as the owner. Once you contract the Design-Build Contractor, you are also tied to that contract time.

Hawaii State Hospital Update

- Funds released ……..……..November 2014
- Project started ……. January 2015
  - Program verification/update
  - Prepare RFP documents
  - Scope, schedule & cost estimates
  - Project entitlements
    - Environmental Impact Statement
    - Plan Review Use Application/Permit
- Request for Proposals (Qualifications) advertised……..April 18, 2017
- Request for Proposals (Design proposal/price) released …….August 21, 2017
- Proposals Received……..November 8, 2017
- Design-Builder selected/awarded ……..….January 25, 2018
- Contract Notice to Proceed……...……February 28, 2018
- Contract completion date……..January 26, 2021

Hawaii State Hospital Update

- Design-Build method has brought project within budget
- Design-Build contract amount: $140 million
- No change orders to date
- Overall good design and expertise being brought forward by the Design-Build team.
- Design-Builder, Hawaii State Hospital, DAGS Consultants and DAGS have had some challenges, but have partnered well. Project is going well!

Questions & Answers

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MAHALO!

HAWAII STATE HOSPITAL

NEW PATIENT FACILITY

HENSEL PHELPS Plan. Build. Manage. G70 kmd

Design with Value – Built to Last – Delivered as Partners

MAJOR THEMES

- **Safety & Security**
- **Treatment vs Incarceration**
- **Hawaii Placemaking**

OUR MISSION

An integrated team providing a state-of-the art forensic psychiatric facility for the State of Hawaii

Design with Value – Built to Last – Delivered as Partners

Design with Value – Built to Last – Delivered as Partners

Project Facts

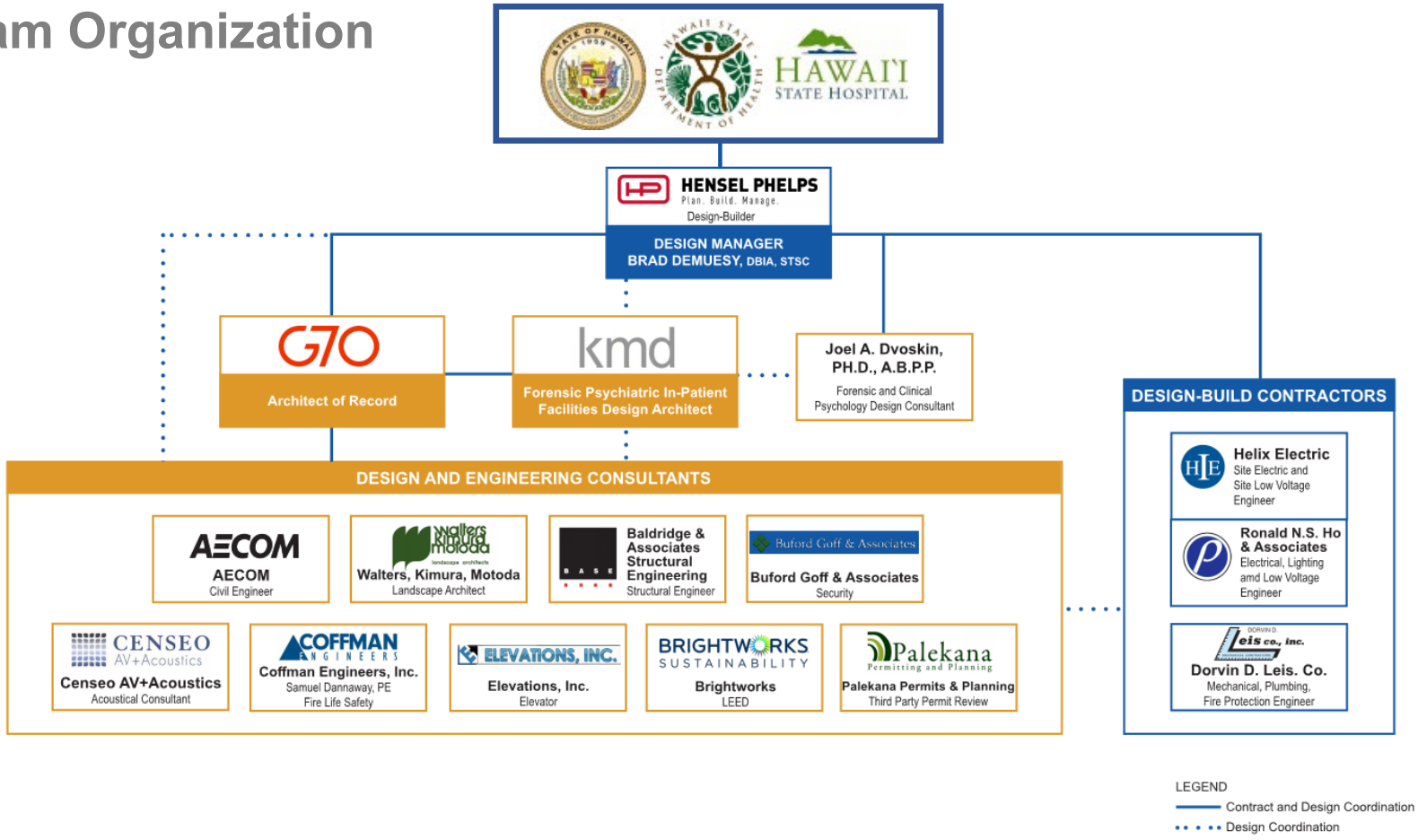
144 Beds
High Risk Unit – 24 beds
Admission Unit – 24 beds
4 Patient Units – 4 x 24 beds
Rehabilitation Therapy Mall

> 190,000 GSF
~ 7 Acres
> 255 Parking Stalls

4 stories

3 structures
- New Patient Facility
- Central Utility Plant
- Site Elevator & Stairway

Team Organization

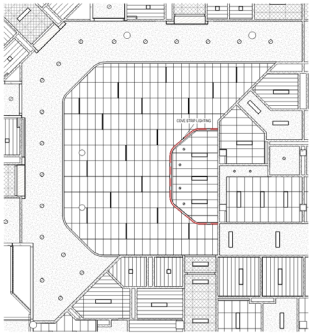


Team Communications

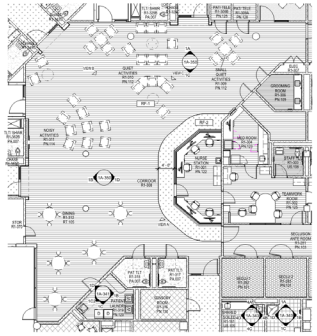
3 VIEW C

2 VIEW B

1 VIEW A



2 TYPICAL DAYROOM -1ST FLOOR RCP



1 TYPICAL DAYROOM-1ST FLOOR

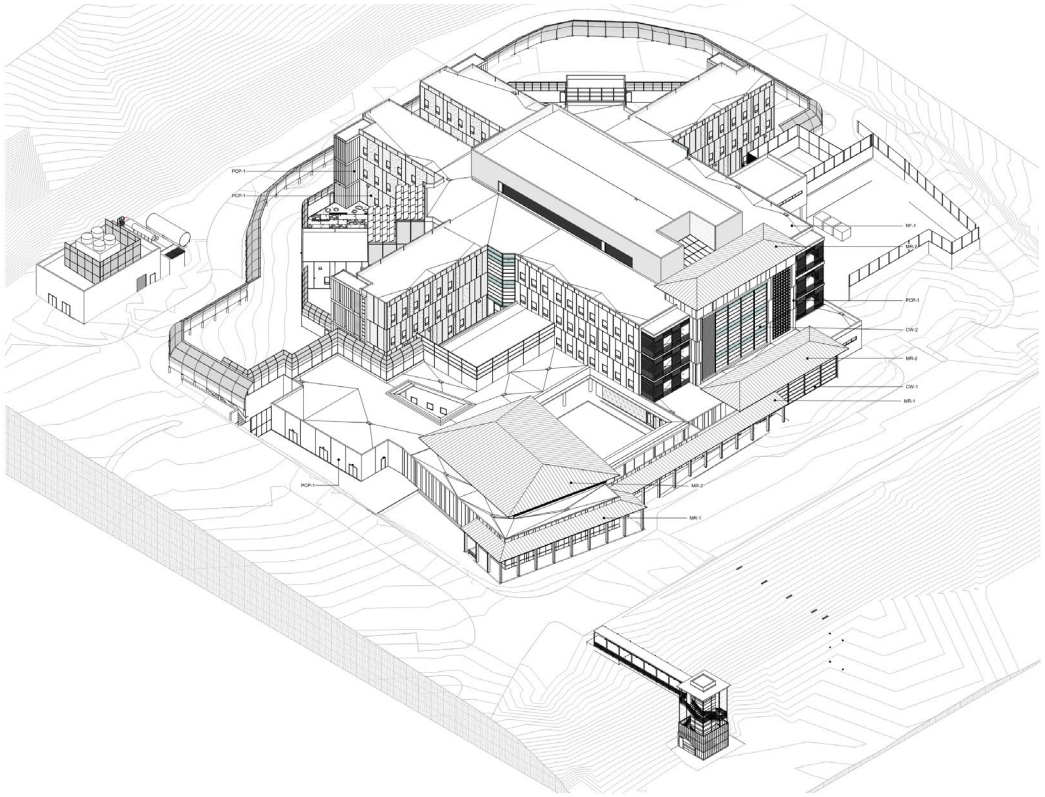
Weekly Design Meetings

Bi-Monthly OAC Meetings

Monthly User Group Meetings

Project Shared Site: SharePoint

Building Information Management



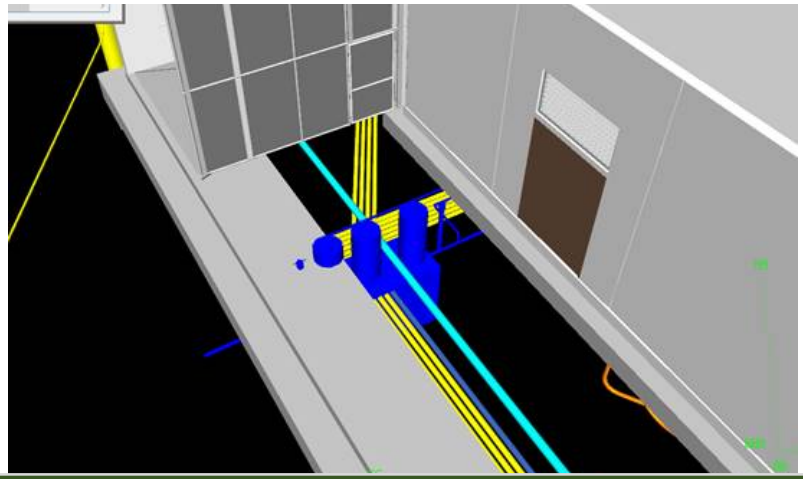
BIM setup: Autodesk Revit 2018
Collaboration for Revit (C4R)
Autodesk Civil 3D 2016

CAD Software: Autodesk AutoCAD 2018

Coordination Software: Autodesk Navisworks 2018

Collaboration Software: Bluebeam Revu
Bluebeam Studio (cloud-based collaboration)

Project Shared Site: SharePoint



Sustainability

Hawaii State Hospital New Patient Facility

LEED-NC v4 Healthcare Scorecard

Date: 10/8/2018

Goal: Silver

44 16 4 65 Total Project Score — Certified 40-49 points · Silver 50-59 points · Gold 60-79 points · Platinum 80 or more points

LEAD						
DESIGN TEAM	Y				Prereq 1	Integrative Project Planning and Design — Required
DESIGN TEAM		1			Credit 1	Integrative Process — 1

	3			22		**Location and Transportation**	**9 Points Possible**
				16	Credit 1	LEED for Neighborhood Development Location	--- — 9
BW	1				Credit 2	Sensitive Land Protection	Previously Developed — 1
				2	Credit 3	High Priority Site	--- — 2
				1	Credit 4	Surrounding Density and Diverse Uses	--- — 1
				2	Credit 5	Access to Quality Transit	--- — 2
BW/G70	1				Credit 6	Bicycle Facilities	1
BW				1	Credit 7	Reduced Parking Footprint	Baseline — 20% Reduction — 1
DAGS	1				Credit 8	Green Vehicles	1

	5	1		3		**Sustainable Sites**	**9 Points Possible**
HP	Y				Prereq 1	Construction Activity Pollution Prevention	Required
BW	Y				Prereq 2	Environmental Site Assessment	Required
AECOM/WKM	1				Credit 1	Site Assessment	1
WKM	1				Credit 2	Site Development - Protect or Restore Habitat	On-site restoration — 1
WKM				1	Credit 3	Open Space	1
AECOM/WKM		1		1	Credit 4	Rainwater Management	95th Percentile — 2
AECOM				1	Credit 5	Heat Island Reduction	1
HELIX	1				Credit 6	Light Pollution Reduction	Site and building mounted lights — 1
WKM	1				Credit 7	Places of Respite	1
WKM	1				Credit 8	Direct Exterior Access	1

	6		2	3		**Water Efficiency**	**11 Points Possible**
AECOM/WKM	Y				Prereq 1	Outdoor Water Use Reduction, 30%	Required
DL	Y				Prereq 2	Indoor Water Use Reduction, 20%	Required
DL	Y				Prereq 3	Building-Level Water Metering	Required
AECOM/WKM	1				Credit 1	Outdoor Water Use Reduction, 50%	1
DL	4		1	2	Credit 2	Indoor Water Use Reduction, (35%) (40%–1pts)	Reduced 35% — 7
DL	1	1			Credit 3	Cooling Tower Water Use	Max cycles up to 10 — 2
DL				1	Credit 4	Water Metering	Domestic Hot water, laundry machines — 1

	15	3		18		**Energy & Atmosphere**	**35 Points Possible**
HP	Y				Prereq 1	Fundamental Commissioning and Verification	Required
DL	Y				Prereq 2	Minimum Energy Performance	Required
DL	Y				Prereq 3	Building-Level Energy Metering	Required
DL	Y				Prereq 4	Fundamental Refrigerant Management	Required
DAGS	6				Credit 1	Enhanced Commissioning	Enh. Cx + Monitor + Env. — 6
HP	8	2		10	Credit 2	Optimize Energy Performance	New Const. — Reduced 16% — 20
RNSH		1		1	Credit 3	Advanced Energy Metering	1
				2	Credit 4	Demand Response	--- — 2
				3	Credit 5	Renewable Energy Production	--- — 3
DL	1				Credit 6	Enhanced Refrigerant Management	1
				2	Credit 7	Green Power and Carbon Offsets	--- — 2

LEAD						
G70/KMD	Y				Prereq 1	Storage & Collection of Recyclables — Required
HP	Y				Prereq 2	Construction & Demolition Waste Mgmt. Planning — Required
G70/KMD	Y				Prereq 3	PBT Source Reduction: Mercury — Required

	3	2	2	12		**Materials & Resources**	**19 Points Possible**
HP				5	Credit 1	Building Life-Cycle Impact Reduction	--- — 5
HP			1	1	Credit 2	Building Products: EPD's	Opt 1 -20 EPD's — 2
HP			1	1	Credit 3	Building Products: Sourcing of Raw Materials	Opt 2 -Respons. Extraction — 2
HP				2	Credit 4	Building Products: Material Ingredients	Opt 3 -Supply Chain Optim. — 2
RNSHA	1				Credit 5	PBT Source Reduction: Mercury	1
HP	2				Credit 6	PBT Source Reduction: Lead, Cadmium, Copper	2
KMD				2	Credit 7	Furniture and Medical Furnishings	--- — 2
G70/KMD				1	Credit 8	Design for Flexibility	1
HP		2			Credit 9	Construction & Demolition Waste Management	Divert 75% & 4 material strea — 2

	8	3		5		**Indoor Environmental Quality**	**16 Points Possible**
DL	Y				Prereq 1	Minimum IAQ Performance	Required
G70/KMD	Y				Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
DL	2				Credit 1	Enhanced Indoor Air Quality Strategies	--- — 2
TEAM/HP		1		2	Credit 2	Low-Emitting Materials	Four Compliant Categories — 3
HP	1				Credit 3	Construction Indoor Air Quality Management Plan	1
HP	2				Credit 4	Indoor Air Quality Assessment	Air Testing — 2
DL				1	Credit 5	Thermal Comfort, Design & Control	1
RNSH	1				Credit 6	Interior Lighting (90% controls)	1
BW		1		1	Credit 7	Daylight	--- — 2
BW/G70		1		1	Credit 8	Quality Views	Perimeter area req'ts — 2
Censeo	2				Credit 9	Acoustic Performance	Options 1 and 2 — 2

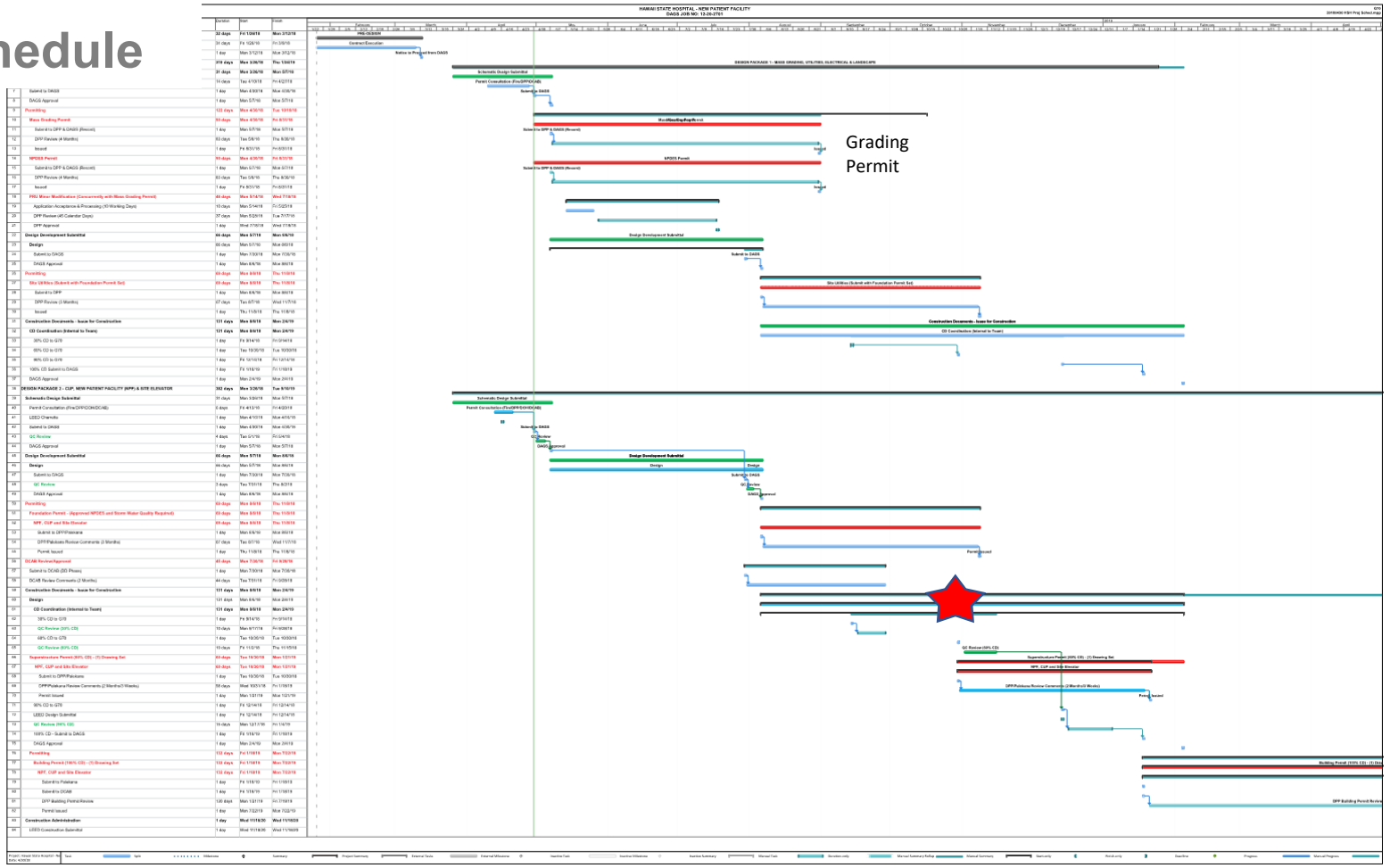
	2	4				**Innovation & Design Process**	**6 Points Possible**
RNSH	1				Credit 1.1	Innovation	Purchasing- Lamps: Low Mercury Lighting — 1
G70		1			Credit 1.2	Innovation	Occupant Comfort Survey — 1
HP		1			Credit 1.3	Pilot Credit	Verified C&D Recycling Rates — 1
HP		1			Credit 1.4	Pilot Credit	Green Advantage Cert or Green Training — 1
DL/RNSHA		1			Credit 1.5	Pilot Credit	CCP Airborn Release or Enhanced Acoustics - Ext Noise Control — 1
BW	1				Credit 2	LEED™ Accredited Professional	1

	2	2		2		**Regional Credits**	**6 Points Possible**
		96744				zip code	
	1				Credit 1.1	Regional Credit: Outdoor Water Use Reduction	1 pt threshold — 1
	1				Credit 1.2	Regional Credit: Indoor water use reduction	1 pt threshold — 1
		1			Credit 1.3	Regional Credit: Construction and Demolition Waste Mngmt	1 pt threshold — 1
		1			Credit 1.4	Regional Credit: Rainwater Management	1 pt threshold — 1
			1		Credit 1.5	Regional Credit: Renewable Energy Production	1 pt threshold — 1
			1		Credit 1.6	Regional Credit: Building Life-Cycle Impact Reduction	4 pt threshold — 1

Building-level water metering

STEP ONE	Using the blank template tab, fill in the yellow highlighted cells with your building's information (See Example Water Meter Readings tab for example data).
STEP TWO	Enter monthly meter readings in Column C (for kgal) or Column D (for m^3). While this example shows both units, only one is required.
STEP THREE	Column G or H will automatically calculate daily average water use based on data entered in Column C or D.
STEP FOUR	The graph to the right will populate as data is entered on a monthly basis.
STEP FIVE	Send your project's data to USGBC on a bi-annual basis through LEED Online.
STEP SIX	Share your project's data with USGBC for at least 5 years, per the prerequisite requirements.

Schedule



MAHALO

OUR MISSION

An integrated team providing a state-of-the art forensic psychiatric facility for the State of Hawaii

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