

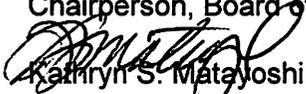


STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

July 21, 2015

TO: The Honorable Lance Mizumoto
Chairperson, Board of Education

FROM: 
Kathryn S. Matayoshi
Superintendent

SUBJECT: **Presentation on the Development and Construction of Ho'okele Elementary School and the Design-Build Method**

1 DESCRIPTION

The use of the design-build process to build the Department of Education's most recent Ho'okele Elementary School.

2 UPDATE OR PRESENTATION

A discussion on the pros and cons of the design-build process as it related to Ho'okele Elementary School.

KSM:kb
Attachment

c: Office of School Facilities and Support Services

DOE HO'OKELE DESIGN-BUILD

A Presentation to the
Board of Education
July 21, 2015



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Background - Low Bid

- In 2007, 95% of our construction bids were 'low bid'
- "Low Bid" best for straightforward R&M jobs.
- For other projects however, especially larger, challenging projects 'low bid' may not be the best solution



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Issues in Low Bid

- Low price but not necessarily best value.
- Potential adversarial relationships between owner, designer and contractor.
- Process is sequential and can be time consuming.



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Why Consider Design-Build?



- Design-Build is an alternative that provides another tool to deliver quality projects
- Design-Build is a concept that is gaining acceptance across the country

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Why Consider Design – Build?

1. Change nature of Owner/Designer/Contractor relationships
2. Establish clearer lines of responsibility
3. Encourage 'Best Value'
4. Improve timeliness of major projects



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Structuring Our Version of Design-Build

- Two step process using established Request for Proposal (RFP) procedures
 - 1st Step – Qualifying
 - 2nd Step – Final Round
- Limit finalists to maximum 3
- Allow for payment of stipends in exchange for ownership of designs
- Follow Design Build Institute of America Best Practices



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Project Description

750 Student Elementary School
12.4 acre lot in Kapolei, Hawaii

Site Plan



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Site Plan

Precast Structure, wall panels & double tees
Wood-framed Arts & Science pavilion
Pre-Engineered Steel Covered Playcourt



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Building Photos



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Design Walkthrough



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Design Build Team

Project Team



Design Build Lead Contractor



KYA – Architect of Record



NAC Architecture – Educational Architect



Allison Ide – Structural



RM Towill – Civil

R. M. TOWILL CORPORATION
SINCE 1930



Belt Collins – Planning & Landscape

Hawaii State Department of Education



Design Criteria Consultants



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Kiewit Building Group

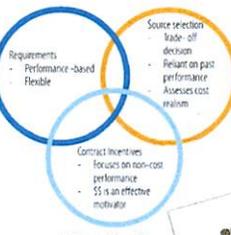
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Client Relations

Partnering

- Partnering Agreement
 - Issue Resolution Ladder
 - Vehicle for constructive feedback
 - Identifying Hot Buttons
- Quarterly Partnering Workshops
- Full Team Involvement on all levels
- Regular Evaluations

2. Give them flexibility, opportunity to succeed, & accountability



1. Pick the right Design-Build team

3. Reward them for performing to your satisfaction



Facilitator
Craig Unger, DBIA

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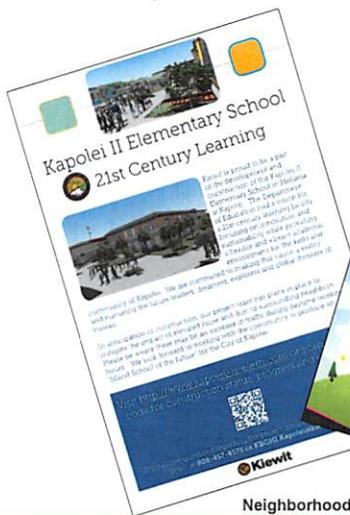
Kiewit Building Group

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Client Relations

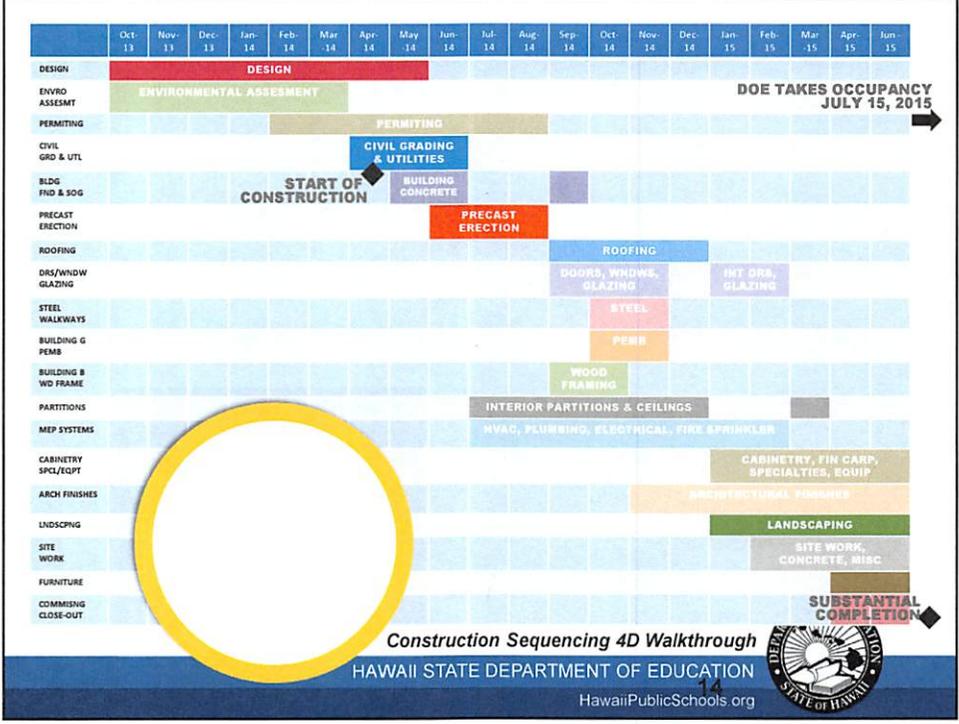
Community Outreach

Temporary Community Outreach Website



Neighborhood Outreach Flyer

Temporary Community Outreach Website



Construction Sequencing 4D Walkthrough

Site Photos



Kovall Building Group

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Site Photos



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Site Photos



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Site Photos



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Site Photos

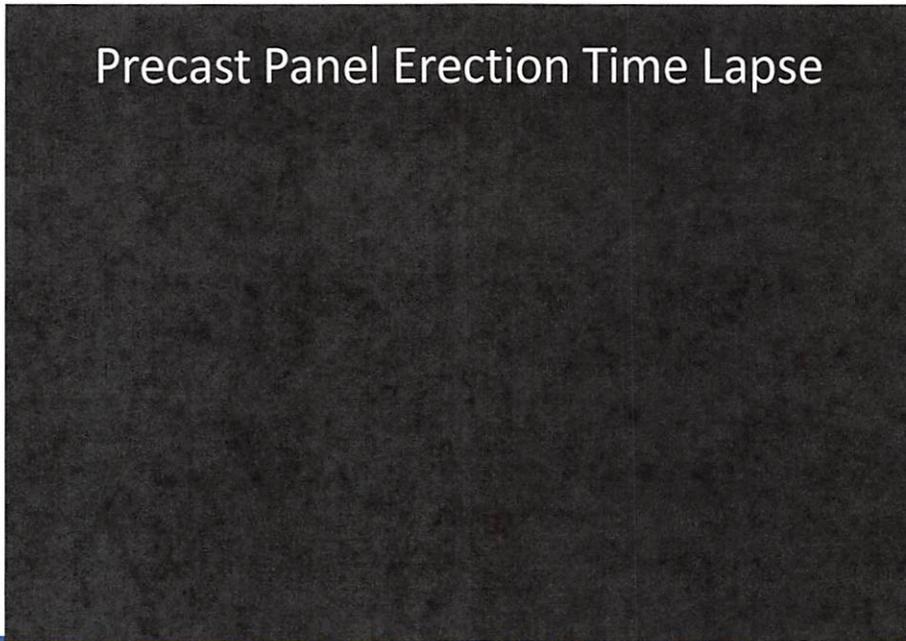


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Precast Panel Erection Time Lapse



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Fly-over Site Time Lapse

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Comparison of 2 projects

- Compare one project using 'low bid' against a similar project using Design-Build.
- Two new elementary school campuses were selected for the comparison:
 - Pu'u Kukui: Low Bid
 - Ho'okele: Design Build

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Pu'u Kukui Elementary School



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Pu'u Kukui Elementary School

- Low Bid 2010 (Design-Bid-Build)
- Wailuku, Maui
- 13.8 Acre Site (11% slope)
- 550 planned enrollment (K-5)
- Size: 98,849 square feet
- Cost: \$34,929,411

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Ho'okele Elementary School

- RFP 2013 (Design-Build)
- Ewa Beach, Oahu
- 12.4 Acre Site (Flat)
- 750 planned enrollment (K-6)
- Size: 123,173 square feet
- Cost: \$38,288,000

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COST ANALYSIS

Puu Kukui

- \$34,929,411(2010)
- Geographic Factor (1.15%)
- Adjusted Cost: \$30,373,400 (Oahu cost)
- Cost per Acre: \$2,200,971
- Cost per Student: \$55,224
- Cost per sq. ft.: \$307
- Cost per sq. ft. \$331(2013)

Ho'okele

- \$38,288,000 (2013)
- Geographic Factor = (1.00%)
- Adjusted Cost: \$38,288,000 (Oahu Cost)
- Cost per Acre: \$3,087,741
- Cost per Student: \$51,050
- Cost per sq. ft.: \$310

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Lessons Learned So Far

- Lump-sum funding can be an issue
- Design-Build (DB) takes time to do correctly
- May not be suited for all projects
- DB can allow for more creativity and flexibility in procuring construction

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Mahalo

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