

Miami University
Board of Trustees Finance & Audit Committee Meeting
104 Roudebush Hall
January 6, 2012

A Special Meeting of the Finance and Audit Committee of the Miami University Board of Trustees was held on January 6, 2012 in Room 104 Roudebush Hall on the Oxford Campus. The meeting was called to order at 1:30 p.m. Committee member Donald Crain was in attendance. Committee Chair David Shade, Committee members David Herche, Sharon Mitchell, and Michael Armstrong, and Trustees Tom Grote and Mark Ridenour, monitored the meeting via teleconference.

In addition to the Trustees, the following Miami staff members attended all or part of the meeting: David Creamer, Vice President for Finance and Business Services; Ted Pickerill, Secretary to the Board of Trustees; and Robin Parker, General Counsel.

The purpose of the meeting was to receive a report on the Armstrong Student Center, Project Management Process Review, conducted by the firm Brailsford and Dunlavey. Ms. Julie Skolnicki and Mr. Chris Watson of Brailsford and Dunlavey were in attendance. A quorum of members were not physically present, and no votes were taken.

Project Management Process Review

Ms. Skolnicki and Mr. Watson of Brailsford and Dunlavey led a discussion of the process, findings and recommendations of their review. Their presentation is included as attachment A.

With no other business to come before the Committee, the meeting was adjourned at 2:45 p.m.



T. O. Pickerill II
Secretary to the Board of Trustees

STUDENT CENTER

PROJECT MANAGEMENT PROCESS REVIEW

BOARD REVIEW

MIAMI UNIVERSITY | JANUARY 6, 2012



BRAILSFORD & DUNLAVEY



AGENDA

- Work Plan / Schedule Review
- Summary of Findings
- Recommendations
- Next Steps



WORK PLAN

- ❖ Review Current Process & Documents
- ❖ Process Initiation and Team Interviews
- ❖ Review Project Documentation
- ❖ Documentation of Findings



GOALS

- ❖ Review Miami Project Management Procedures
 - Utilize the Armstrong Student Center as a Case Study
- ❖ Identify Project Risks: Quality, Budget, & Schedule



SCHEDULE

Brailsford and Dunlavy
 ASC Project Management Process Review
 Draft Schedule
 11.2.11



				2011											
Miami Univeristy- ASC Review	Duration	Date	Site Visit	October				November							
				3rd	10th	17th	24th	31st	7th	14th	21st	28th			
Project Mangement Review															
Review Miami's current process and documents															
Process initaitaion and team interview	3 days	Oct 4-6th	x	■											
Review project documentation	3 w weeks	Oct 10-21			■										
Status Update / Additional Information	2 w weeks	Oct 24-7th					■								
a. Status Review Call		Oct. 25 / Nov. 1	x				■	■							
b. Request of additonal information		Oct. 25th					■								
c. Review additional information	1 w week						■								
d. Preliminary Findings Meeting		Nov. 2nd	x				■								
Draft Findings Report (via e-mail)		Nov 9th					★								
Final Report/Presentation	3 w weeks														
a. Presentation of Findings	1 day	Nov. 16th	x							■					
b. Final Documentation											★				
c. Updates or changes to the Final Report	2 w week	Nov 21st-25th													
d. Information sent to Finance Committee	1 day	Dec 1st											★		

WORK PLAN

Interviews Completed (10.4.11 -10.6.11)

Miami Team Interviews

- Dr. David Creamer, VP of Business & Finance
- Robert Keller Assoc. VP for Facilities, Planning & Operations / University Architect
- Jack Williams, Sr. Project Manager
- John Seibert, Sr. Project Manager

Associate Team Interviews

- Erik Tellander: William Rawn & Assoc., Design Architect, Project Designer
- Doug Jonston: William Rawn & Assoc., Design Architect, Project Principal
- Tom Sens: BHDP, Architect of Record, Project Principal
- Kevin Denman: BHDP, Architect of Record, Project Manager
- Jason Jones: THP, Consulting Structural Engineer, Project Manager
- Kevin Scubert: EIC, Cost Estimator
- Greg Tkacz: HAWA Inc., Consulting Engineer, HVAC, Project Principal & Project Manager
- Chris Pore: HAWA Inc., Consulting Engineer, HVAC, Project Principal & Project Manager
- Craig Honkomp: Kleingers & Assoc., Inc, Civil Engineer of Project Principal
- Dave Chislet: Ricca Newmark, Dining Design consultant. (*Did not interview on 10.4.11*)

WORK PLAN

Project Documentation Reviewed

- ❖ Project Team List and Structure
- ❖ Project Plans & Specifications
- ❖ Project Phase Submission & Approvals
- ❖ Design Development Checklist
- ❖ Construction Document Checklist
- ❖ Meeting Minutes
- ❖ Correspondence
- ❖ Schedules (A/E SD and DD Schedules)
- ❖ Bid Phase Documents
- ❖ Site Existing Conditions
- ❖ Miami PM Manual
- ❖ Design Manual
- ❖ Farmer POR
- ❖ BSC SD POR
- ❖ PFD Capital Improvement Report 2007
- ❖ Project Fact Sheets (SD, DD, CD)
- ❖ Estimates
- ❖ Bid Documents
- ❖ Consultant Contracts
- ❖ Project Budget Sheets

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SUMMARY OF FINDINGS

Report Table of Contents

1. Executive Summary
2. Recommendations

Exhibits:

- A. Document & Data Summary
- B. Interview Summary
- C. Final Presentation
- D. Sample Documents & Procedures
 1. Responsibility Matrix & Communication Plan
 2. Monthly Report
 3. Action Items
 4. Quality Assurance Plan
 5. Design Phase Approval Procedures Checklist
 6. Budget Establishment Procedures
 7. Estimating Standard Procedures
 8. Constructability Reviews
 9. BIM Procedures Protocol
 10. Project Schedule Procedures

SUMMARY OF FINDINGS

ASC Project Complexity

- **Large Scale Project** at over 200,000sf and \$40M in construction costs;
- **Diverse Program Requirements** including specialties such as: food service, theater, atrium, commons, pavilion, and space for student organizations;
- **Complex Construction** including: new construction, renovations, long span and multi-level spaces, roof gardens, and complex audio/video and technology requirements;
- Significant **Site Constraints** including three existing buildings, existing and additional infrastructure, campus circulation patterns, and multi-level grade changes;
- **A diverse stakeholder group;**
- **Multi-phased construction project;** and
- An evolving **design team and structure.**

SUMMARY OF FINDINGS

ASC Exposures

Budget

- ❖ 25% Over advertised bid phase estimate
 - Estimating Errors: Material Quantities and Unit Cost
 - Estimating Omissions
- ❖ 49% Over the original Fixed Limit Construction Cost (FLCC)
 - Estimating Errors Mentioned Above
 - Scope Changes: Programming, SD and DD Phases

Schedule: Programming & Design: 4 years

- ❖ Programming: 8/07 – 9/08 (13mo)
- ❖ WTW Schematic Design: 9/08 – 10/09 (13mo)
- ❖ WRA Schematic Design: 10/09 – 8/10 (10mo)
- ❖ Design Development : 8/10 – 4/11 (8mo)
- ❖ Construction Documents: 4/11 – 7/11 (3mo)
- ❖ Bid Phase: 7/11 – 9/11 (2mo)

Contract Dates:

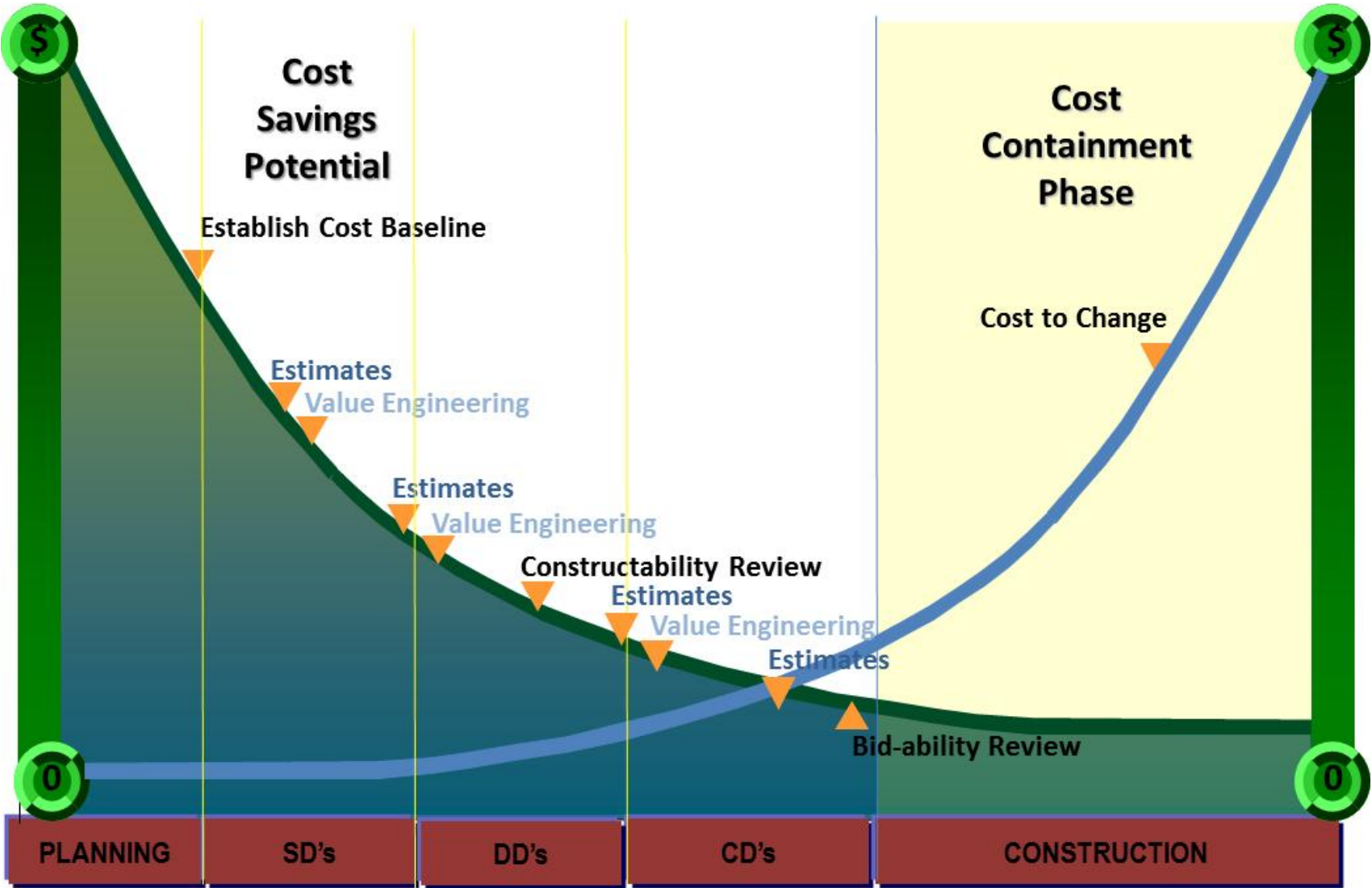
- ❖ WTW: 8/07
- ❖ BHDP/WTW: 6/08 – 11/09
- ❖ BHDP/WRA: 11/09 – 3/14

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RECOMMENDATIONS



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Quality Assurance & Management

- ❖ Development of Program Document (Utilize as Contract Exhibit)
 - Align POR with Budget
 - POR Review and Update Sign-off at each Key Milestone
 - +/- 10% or 200 SF or Programmed Space
 - +/- \$50,000 (or value appropriate to project scale)
- ❖ Development of Design Standards (Align Budget with Design Standards)
- ❖ Re-Establish Project Checklist Per Phase (POR, SD, DD, CD)
- ❖ Project Sign-off Sheets Process
 - Accountability & Requirements to move Project Forward
 - Align with Funding and Notice to Proceed
 - Managed/Formal Review Process
 - Key Reviews: POR & Design Guidelines Conformance, Constructability and Budget
 - Milestones (50% & 100% POR, SD, DD, CD)
 - Value Engineering at Each Phase to align with Budget Requirements

RECOMMENDATIONS

Develop Communications Procedures / Plan

- ❖ Project Committees Establishment Process
 - Sub-Committees for Specialized Programs
 - Signature at Key Milestones
- ❖ Roles & Responsibilities
 - Action Items
- ❖ Meeting Frequency
 - POR Development
 - Design Phase
 - Construction Phase
- ❖ Develop Action Items and Meeting Note Formatting
 - Issue Tracking, Responsibility Tracking, Due Dates, Risk/Exposures
- ❖ Schedule
 - 30-day look ahead
 - 30-day look back

RECOMMENDATIONS

Schedule Management

- ❖ Development of Scheduling Structure and Activities
 - Historic Schedule (30-day Look Back)
 - Projection Schedule (30-day Look Ahead)
 - Owner Activities & Approvals
- ❖ Schedule Update Requirements (Bi-Weekly / Monthly)
- ❖ Schedule Reviews
 - Milestones (50% & 100% POR, SD, DD, CD)
 - Project Committee Signatures
- ❖ Development of an Oversight PM Owner Schedule
 - A/E Schedule
 - CM Schedule
 - Owner Activities, Key Dates & Approvals

RECOMMENDATIONS

Budget Management

- ❖ Development of Procedures for Establishing Budget
 - Historic Data, Project Type Data and Systems Specific Data
- ❖ Budget Development Committee
 - In-house Expertise
 - Outside Consultants (Complex, Large & Specialty Buildings)
- ❖ Budget Reviews Per Phase (Signature Requirements)
- ❖ Dueling Estimates: A/E and Pre-Construction Firm
 - Required for Large Scale or Complex Projects
 - Reconciliation Required
- ❖ Constructability Reviews
 - Milestones (50% & 100% DD, CD)
- ❖ Establish B.I.M. Level Service Requirements
 - As required to be used for Coordination, Estimating, and Operations

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NEXT STEPS

Implementation of Recommendations

- ❖ Establish unique PMM standards based on project scale and complexity
- ❖ Develop Communication Plan
- ❖ Establish Action Items format
- ❖ Develop Quality Assurance Plan
 - Project Specific Design Standards
 - Development of the POR with an integrated team of PFD and user groups
 - Establish project budget in association with the POR and Design Standards
- ❖ Develop Project Sign-off Procedures
 - Signatory Accountability for Changes affecting Changes to the POR or Budget
- ❖ Re-Establish Project Checklist (POR, SD, DD, and CD Phases)
- ❖ Establish Budget Development/Management Plan
 - Budget Development
 - Estimating / Value Engineering
 - Constructability Reviews
 - B.I.M. Protocols
- ❖ Develop Schedule Management Plan

ADDITIONAL CONSIDERATIONS

❖ Update PPM as appropriate to new State Rules:

- Single Prime
- CM at Risk
- Design-Build

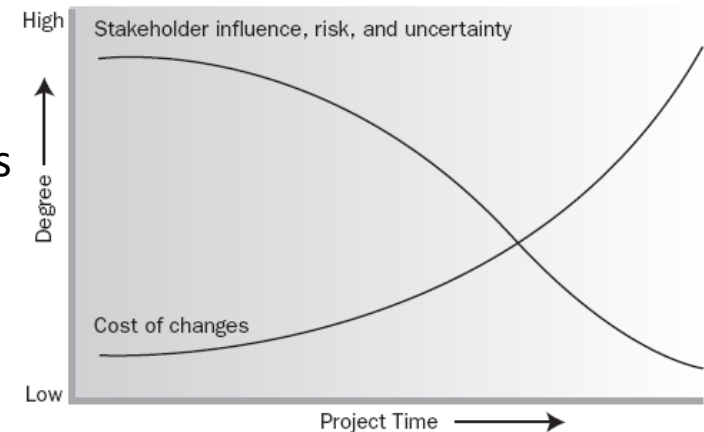
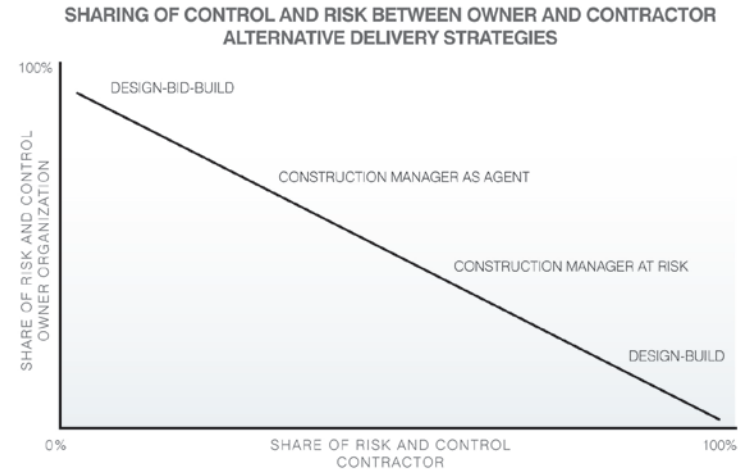
❖ Impact on PFD Manager Workload

- New Procedures
- New State Rules & Delivery Methods

❖ Education of PFD Manager, Administration and User Groups

- Define Roles
- Maximize Involvement Early
- Minimize Design & Construction Changes

❖ Annual Review of PPM



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