

## Design Project Management



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## 1 - AIA Continuing Education Credit



AIA  
Continuing  
Education  
Provider

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Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.

Certificates of Completion for both AIA members and non-AIA members are available upon request.

Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

This course is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

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## Course Description

### Design Project Management

This class will focus on basic effective fundamental procedures for managing the project design process.

Topics include how to understand and administer the design process, how to interview, select and hire a design consultant, how to get the best from your architect/engineer, how to work and communicate with your campus client, effective communication strategies, what to look for in design reviews, and the importance of program and budget conformance.

Review successful processes for value engineering, effective team management, communication, and basic project manager skills.

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## Learning Objectives

1. Learn the basic fundamental procedures for managing project designs.
2. Learn how to understand and administer the design process.
3. Learn how to get the best architect/engineer.
4. Learn how to interview, select and hire a design consultant.

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This concludes The American  
Institute of Architects Continuing  
Education Systems Course

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**APPA Institute**  
Design Project Management


• Licensed Architect

- Colorado
- Georgia
- North Carolina
- Louisiana


• Private Practice 15 years

• Higher Education 27+ Years


- Duke University -6 Years
  - Director Facilities Design Office
  - Assistant Dean Facilities
- University of Colorado -13 Years
  - Director PDC
  - Campus Architect
- Emory University - 5- 1/2 Years
  - AVP PDC
- University of Colorado -3 Years
  - AVC Facilities
  - VC Administration




*Fun in the air*



*Grandsons*



*Kids*



DESIGN  
EXCELLENCE  
4055

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## Resources Available

- Design Guidelines
- Construction Standards
- Project Checklist
- Project Management Service Levels
- Consultant Information Packet
- Quest for Quality Guidelines

- A/E Quality Assurance Program
- A/E Fee Guidelines
- A/E Agreement
- Review Reminders
- A/E Performance Evaluations

<http://www.colorado.edu/facilitiesmanagement/appa/>

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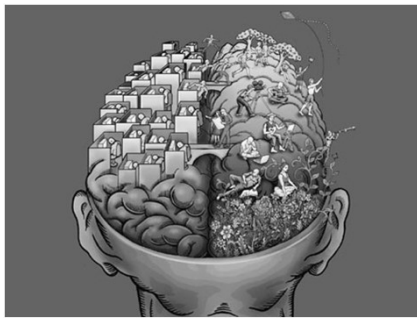
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**Revenge of the Right Brain!**

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## **What are your Goals?**

### **My Goals:**

Understand the Design Process  
Manage the Design Process

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### **Architectural Education**




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## **DESIGN PROJECT MANAGEMENT**

### **Project**

- Traditional Project
- Design / Bid / Build
- Major Project

### **Seminar**

- Programming Complete
- Project Approved
- Project Funded
- Process Ends @ Bidding



### **Seminar Assumptions**

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 APPA Institute Design Project Management	
<div data-bbox="253 407 457 459"><u><b>Overview</b></u></div> <div data-bbox="253 489 441 527">Design Process</div> <div data-bbox="253 541 422 579">Project Team</div> <div data-bbox="253 592 513 630">Design Process Tools</div> <div data-bbox="253 640 522 678">Managing the Process</div> <div data-bbox="527 415 768 596"></div> <div data-bbox="544 611 753 663">Deferred Maintenance or Capital Renewal?</div>	

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 <b>APPA Institute</b> Design Project Management	<b>Design Process</b>
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***Part 1-Design Process***

- Design Process
- Project Schedules
- Project Deliverables
- Designing For Value



"Inconvenience Store"

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How do you get ideas?

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**Frank Lloyd Wright**

Chicago studio shut down from 12-2  
In perfect silence



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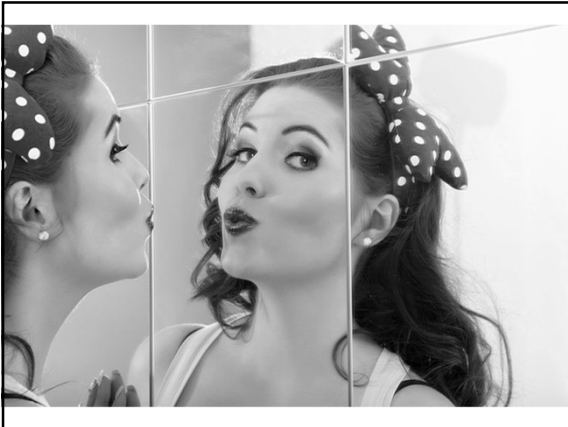
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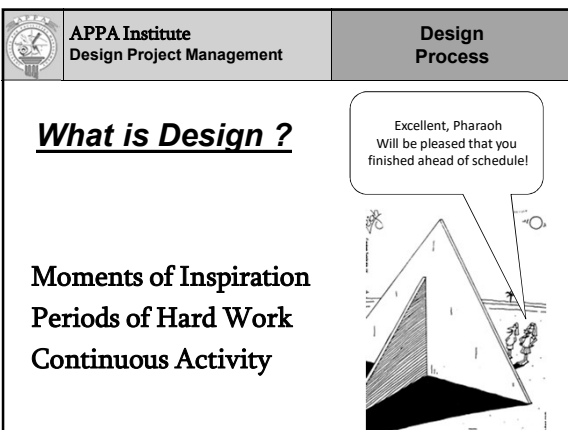
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	<b>APPA Institute</b> Design Project Management	<b>Design Process</b>
	<p><b><u>Influences on Design</u></b></p> <ul style="list-style-type: none"> <li>• Program</li> <li>• Codes / Regulations</li> <li>• Site / Context</li> <li>• Technology</li> <li>• Cost / Schedule</li> </ul>	



Early Art Critic

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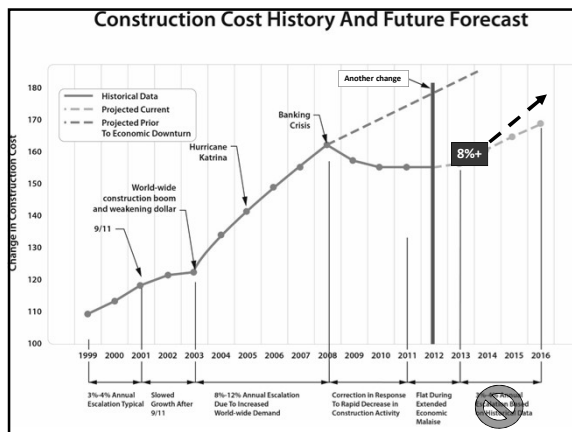
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	<b>APPA Institute</b> Design Project Management	<b>Design Process</b>
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Early Art Critic

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**APPA Institute**  
Design Project Management

**IDEA**

**Design & Reflecting**

## Design Process

- Analysis**
  - Program
  - Site
  - Code
  - Scheduling
  - Cost
  - Constructability
- Synthesis**
  - Goals
  - Concept
  - Alternatives

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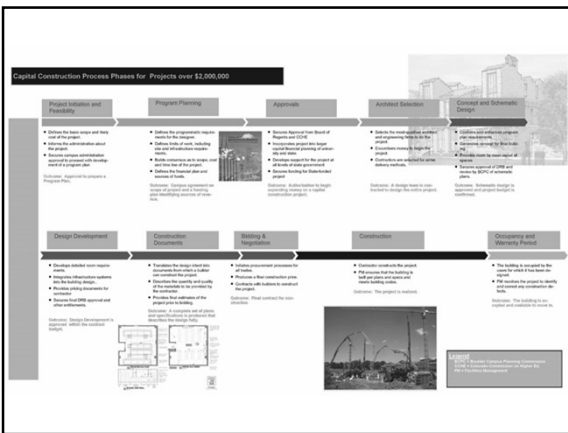
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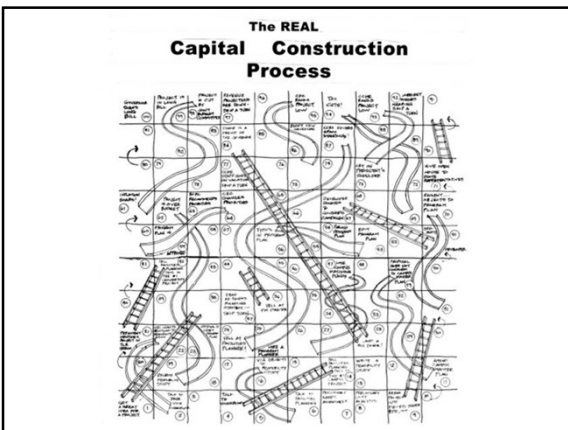
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 <b>APPA Institute</b> Design Project Management	<b>Deliverables</b>
<p><b><u>Design Phases / Deliverables</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Schematic Design</u></b>              Plans / Elevations              Sections / \$ Estimate              Outline Specs              Design Summary / Analysis</li> <li>• <b><u>Design Development</u></b>              Expanded SD Set</li> <li>• <b><u>Construction Documents</u></b>              Detailed Plans</li> </ul> 	

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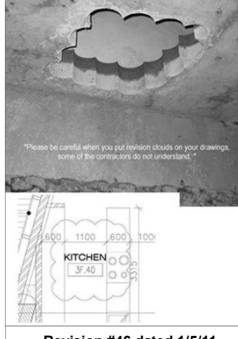
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 <b>APPA Institute</b> Design Project Management	<b>Communication</b>
<p><b><u>Design</u></b></p> <ul style="list-style-type: none"> <li>• All Project Phases</li> </ul> <p><b><u>Communicate</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Client</u></b>              • Programming</li> <li>• <b><u>Professionals</u></b>              • Schematic Design              • Design Development</li> <li>• <b><u>Contractor</u></b>              • Contract Documents              • Construction</li> </ul>	

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 <b>APPA Institute</b> Design Project Management	<b>Schedules</b>
<p><b><u>Project Schedules</u></b></p> <ul style="list-style-type: none"> <li>• A/E Selection</li> <li>• Contract Negotiations</li> <li>• Schematic Design</li> <li>• Design Development</li> <li>• Construction Documents</li> <li>• Bidding / Contract Award</li> <li>• Construction</li> <li>• Close Out</li> <li>• Warranty Period</li> </ul> 	

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DESIGN PRODUCTION SCHEDULE

Example of Typical Design Production Schedule  
(Originally Prepared for The Logan School - Partial Schedule Only)

Week of February 27

**Consultant Coordination Meeting:**  
MDA  
Coordinate meeting  
Consultants  
Advise of what information required to develop preliminary budget, design  
Advise of Survey, Testing, or existing conditions information needed from Owner.  
Provide first pass square footage cost information  
Review Diagram Options.

**Building Committee Meeting:**  
Information, Overview, Roles  
Logan  
Authorize commencement of Civil Engineering  
Review and approve Schedule  
Information to be provided by Owner (Identify items and schedule asbestos, survey, hazardous material  
tests, assessments, other items?)  
MDA  
Agenda and presentation materials

Week of March 6

**Building Committee Meeting:**  
Diagrams of overall design solutions  
Cost-est based on Square Footage Costs  
LG&S  
Decision on selection and approval of diagram  
Review first pass square footage costs.  
MDA  
Agenda and presentation materials

**Regulatory Agency Meetings:**  
UFA/CDoms  
Denver Building (Architectural, Mechanical, Electrical)  
Denver Fire Department  
Commission for Disabled  
Logan  
Representative may want to attend  
MDA  
Set up and conduct meetings with regulatory agencies  
Consultants  
Mechanical, Electrical, Civil meet w/ regulatory agencies as required

**Site Visits:**  
Review of Existing conditions in portion of the building to be renovated  
Structural: squish court wall

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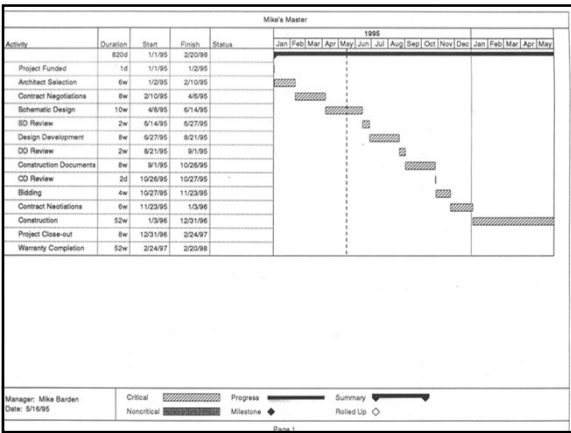
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APPA Institute  
Design Project Management

Design for Value

**Designing For Value**

- Maintainability

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 <b>APPA Institute</b> Design Project Management	<b>Design for Value</b>
<div data-bbox="203 1470 527 1820"><p><b><i>Designing For Value</i></b></p><ul style="list-style-type: none"><li>• Maintainability</li><li>• Life Cycle Cost</li><li>• Value Engineering</li></ul></div> <div data-bbox="527 1470 771 1820"></div>	

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I call it "Value Shifting"

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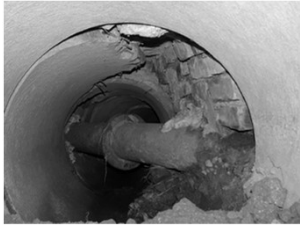
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	<b>APPA Institute</b> Design Project Management	<b>Design for Value</b>
<b><u>Value Management Approach</u></b>		
<ul style="list-style-type: none"> <li>• <b><u>Tier 1</u></b> <ul style="list-style-type: none"> <li>• Gypsum Board</li> <li>• Lighting Package</li> <li>• Direct Purchase</li> </ul> </li> <li>• <b><u>Tier 2</u></b> <ul style="list-style-type: none"> <li>• Relocate Plumbing</li> </ul> </li> <li>• <b><u>Tier 3</u></b> <ul style="list-style-type: none"> <li>• Scope Reductions</li> </ul> </li> </ul>		 <p style="font-size: small; text-align: center;">                     "Tell you what skeeter, it's about quittin' time and family feud is almost on. Just ram that thing right through it. It's 10 foot underground, ain't nobody ever going to see it." ~ Utility Contractor, circa 1976                 </p>

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	<b>APPA Institute</b> Design Project Management	<b>Design for Value</b>
<b><u>Designing For Value</u></b>		
<ul style="list-style-type: none"> <li>• Maintainability</li> <li>• Life Cycle Cost</li> <li>• Value Engineering</li> <li>• Present Value</li> </ul>		 <p style="font-size: small; text-align: center;">                     Ned Beally, of Beally Construction Co., helps his children with a Lego® Mindstorms® robotics project.                 </p> <p style="font-size: small; text-align: center;">                     Oh big surprise. Another announcement of cost overruns and delays.                 </p>

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 <b>APPA Institute</b> Design Project Management	<b>Project Team</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b><u>Part 2</u></b> <b><u>The Project Team</u></b></p> <ul style="list-style-type: none"> <li>• Assembling The Team</li> <li>• Selecting The Team</li> <li>• Team Members &amp; Roles</li> </ul> </div> <div style="width: 45%; text-align: center;">  <p>Wildlife Day Shifts</p> </div> </div>	

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 <b>APPA Institute</b> Design Project Management	<b>Project Team</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b><u>Project Team</u></b></p> <ul style="list-style-type: none"> <li>• Owner</li> <li>• Consultants</li> <li>• Design Team</li> <li>• Construction Team</li> <li>• Supporting Cast</li> </ul> </div> <div style="width: 45%; text-align: center;">  </div> </div>	

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 <b>APPA Institute</b> Design Project Management	<b>Project Team</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b><u>The Project Team</u></b></p> <p><b><u>Owners</u></b></p> <ul style="list-style-type: none"> <li>• Client</li> <li>• User</li> <li>• Committees</li> <li>• Facilities Management</li> <li>• Others</li> </ul> </div> <div style="width: 45%; text-align: center;">  </div> </div>	

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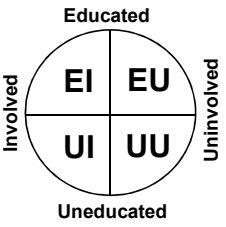
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 <b>APPA Institute</b> Design Project Management	<b>Project Team</b>
<p><b><u>Owners</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Experienced</u></b>              Educated / Involved              Educated / Uninvolved</li> <li>• <b><u>Inexperienced</u></b>              Uneducated / Involved</li> </ul>	

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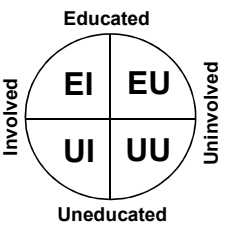
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 <b>APPA Institute</b> Design Project Management	<b>Project Team</b>
<p><b><u>Owners</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Experienced</u></b>              Educated / Involved              Educated / Uninvolved</li> <li>• <b><u>Inexperienced</u></b>              Uneducated / Involved              Uneducated / Uninvolved</li> </ul>	

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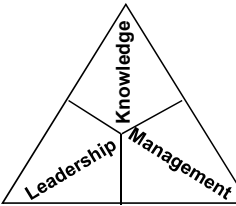
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 <b>APPA Institute</b> Design Project Management	<b>Consultants</b>
<p><b><u>What is a Consultant ?</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Professional Advice</u></b>              Knowledge / Expertise  <b>Leadership</b> (transformational)             <ul style="list-style-type: none"> <li>• Doing the Right Thing</li> <li>• Inspiring</li> </ul> <b>Management</b> (transactional)             <ul style="list-style-type: none"> <li>• Doing Things Right</li> <li>• Day to Day Activities</li> </ul> </li> </ul> 	

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	<b>APPA Institute</b> Design Project Management	<b>Design Team</b>
<p><b><u>The Design Team</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Designers</u></b></li> <li>Architect - Usually Prime</li> </ul> 		

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	<b>APPA Institute</b> Design Project Management	<b>Design Team</b>
<p><b><u>The Design Team</u></b></p> <p><b><u>TEN Deadly Sins</u></b></p> <ol style="list-style-type: none"> <li>1. Team Changes</li> <li>2. Multiple Contacts</li> <li>3. Schedule Delays</li> <li>4. Over Design</li> <li>5. Negative Approach</li> <li>6. Low Quality Product</li> <li>7. Slow Response</li> <li>8. Slow Review</li> <li>9. Weak Leadership</li> <li>10. Close Out</li> </ol> 		

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	<b>APPA Institute</b> Design Project Management	
<p><b><u>What You <i>Should</i> Do</u></b></p> <ul style="list-style-type: none"> <li>• Have a Clear Decision Making Process</li> <li>• Develop a Complete Program</li> <li>• Establish an Adequate Budget</li> <li>• Establish a <u>Realistic</u> Schedule</li> <li>• Communicate Effectively</li> <li>• Hire a Compatible Firm</li> <li>• Guard Against Scope Creep</li> <li>• Deliver Bad News Promptly</li> <li>• Expect to Pay Reasonable Fees</li> </ul> 		

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 <b>APPA Institute</b> Design Project Management	<b>Design Team</b>
<p><b><u>What You Should Not Do</u></b></p> <ul style="list-style-type: none"> <li>• Do Not Rely on Clairvoyance</li> <li>• Do Not Make Impossible Promises</li> <li>• Do Not Accept Sloppy Work</li> <li>• Do Not Expect Perfection</li> <li>• Do Not Expect Added Scope for Free</li> </ul>	

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 <b>APPA Institute</b> Design Project Management		
<p><b><u>Architect Expects</u></b></p> <ul style="list-style-type: none"> <li>• Clear Direction</li> <li>• Instantaneous Decisions</li> <li>• Tightly Defined Scope</li> <li>• Comfortable Budgets</li> <li>• Fair Treatment</li> <li>• Profitable Fees</li> <li>• Quality Design Expectations</li> </ul>	<p><b><u>Architect May Get</u></b></p> <ul style="list-style-type: none"> <li>• Ambiguity</li> <li>• Extensive Collaboration</li> <li>• Scope Creep</li> <li>• Inadequate Budgets</li> <li>• Unreasonable Contracts</li> <li>• Gift Opportunities</li> <li>• Low Design Expectations</li> </ul>	
<p><b><u>You Expect</u></b></p> <ul style="list-style-type: none"> <li>• Exceptional Service</li> <li>• Adherence to Budgets</li> <li>• Meeting Schedule Milestones</li> <li>• Comprehensive Services</li> <li>• Complete Drawings</li> <li>• Cost Effective Design</li> </ul>	<p><b><u>You May Get</u></b></p> <ul style="list-style-type: none"> <li>• Nonchalance</li> <li>• Budget Busters</li> <li>• Delays</li> <li>• Requests for Additional Fees</li> <li>• Errors &amp; Omissions</li> <li>• Extravagance</li> </ul>	

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 <b>APPA Institute</b> Design Project Management	<b>Design Team</b>
<p><b><u>The Design Team</u></b></p> <ul style="list-style-type: none"> <li>• <b>Designers</b></li> <li>• <b>Architect - Usually Prime</b></li> <li>• <b>Engineers</b> 25% to 65% of Cost</li> <li>• <b>Others</b> <ul style="list-style-type: none"> <li>Planner</li> <li>Landscape Architect</li> <li>Interior Designer</li> <li>Graphic Designer</li> </ul> </li> </ul>	

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	<b>APPA Institute</b> Design Project Management	<b>Construction Team</b>
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### **The Construction Team**

- **Contractor**
  - GC - avg. < 10 employees
  - Design Build
  - Construction Manager
- **Subcontractors**
- **Suppliers**
- **Laborers**

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	<b>APPA Institute</b> Design Project Management	<b>Project Team</b>
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### **The Project Team**

- **Supporting Cast**
  - Finance Accounting
  - Insurance / Risk Mgt.
  - Regulators
  - Legal
  - Others

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	<b>APPA Institute</b> Design Project Management	<b>Team Selection</b>
<ul style="list-style-type: none"> <li>• <u><b>Approaches to Selection</b></u> <ul style="list-style-type: none"> <li><b>Direct</b></li> <li><b>Resources</b></li> <li><b>Experience</b></li> <li><b>Ability</b></li> <li><b>Compatibility</b></li> <li><b>Cost</b></li> <li><b>Ideas</b></li> <li><b>Comparative – Brooks Act</b></li> <li><b>Competitions</b></li> </ul> </li> </ul>		<p align="center"><u><b>Selecting the Design Team</b></u></p> 

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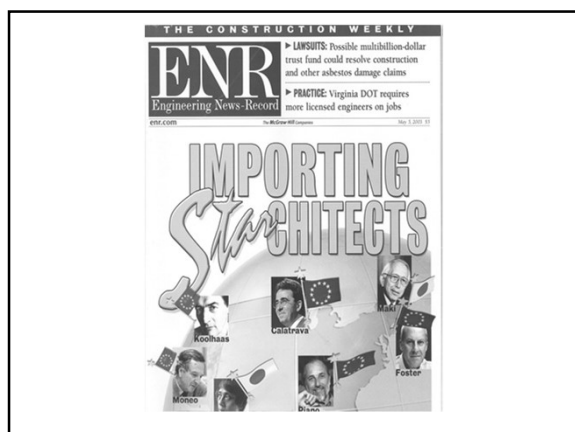
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	<b>APPA Institute</b> Design Project Management	<b>Team Selection</b>
<p style="text-align: center;"> <u><b>Selecting the Consultants</b></u> </p> <ul style="list-style-type: none"> <li>• Owner Selects</li> <li>• Prime Selects Subs</li> <li>• Combination</li> </ul> <div style="text-align: right; margin-top: 20px;">  <p style="text-align: center;"><b>Competition in nature</b></p> </div>		

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	<b>APPA Institute</b> Design Project Management	<b>Process Tools</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b><u>Part - 3</u></b></p> <p style="text-align: center;"><b><u>Design Process Tools</u></b></p> <ul style="list-style-type: none"> <li>• Communication</li> <li>• Negotiations &amp; Fees</li> <li>• Design Process Tools</li> </ul> </div> <div style="width: 45%; text-align: center;">  </div> </div>		

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	<b>APPA Institute</b> Design Project Management	<b>Communication</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b><u>Communication</u></b></p> <ul style="list-style-type: none"> <li>• <u>Talking</u></li> <li>• <u>Listening</u></li> </ul> </div> <div style="width: 45%;"> <p>Effective communication =</p> <p><b>80%+</b> of project problems</p> <div style="text-align: center;">   </div> </div> </div>		

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	<b>APPA Institute</b> Design Project Management	<b>Communication</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: center;"><b><u>Communication</u></b></p> <ul style="list-style-type: none"> <li>• <u>Talking</u></li> <li>• <u>Listening</u> (what not to do)</li> </ul> <div style="margin-top: 10px;">             Mind Reader              Rehearser              Filterer              Dreamer              Comparer              Derailer              Placator           </div> </div> <div style="width: 45%;"> <p style="text-align: center;"><b><u>What we say to dogs</u></b></p>  <p style="text-align: center;"><b><u>What they hear</u></b></p>  </div> </div>		

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Oh no!  
It's from Connie!  
She's written me a *John Deer* letter.

<b>Body Language</b>	<b>55%</b>
<b><u>How</u> we say it</b>	<b>38%</b>
<b><u>What</u> we say</b>	<b>7%</b>

😊

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**People Only Hear Every 3<sup>rd</sup> Word**

**People Only Retain Every 5<sup>th</sup> Word...**

**In fact....**

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 <b>APPA Institute</b> Design Project Management	<b>Communication</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <ul style="list-style-type: none"> <li>• <b><u>Talking</u></b></li> <li>• <b><u>Listening</u></b></li> <li>• <b><u>Writing</u></b> <ul style="list-style-type: none"> <li>• Email Etiquette (Netiquette)               <ul style="list-style-type: none"> <li>• Use "reply all" judiciously</li> <li>• Refrain From Using !!!!!</li> <li>• Avd txt msg'ng abrev</li> <li>• Don't use Wallpaper</li> <li>• AVOID ALL UPPER CASE</li> <li>• Clear &amp; Concise</li> <li>• <u>Think</u> Before Sending</li> <li>• Answer Promptly</li> <li>• Avoid Unnecessary Attachments</li> </ul> </li> </ul> </li> </ul> </div> <div style="width: 35%; text-align: center;">  </div> </div>	

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 <b>APPA Institute</b> Design Project Management	<b>Communication</b>
<ul style="list-style-type: none"> <li>• <u>Talking</u></li> <li>• <u>Listening</u></li> <li>• <u>Writing</u></li> <li>• <u>Meetings</u></li> </ul> <p>Where minutes are taken and hours are lost</p> <p><b><u>Communication</u></b></p>	 <p>Mark Bristol UNC</p>

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 <b>APPA Institute</b> Design Project Management	<b>Communication</b>
<ul style="list-style-type: none"> <li>• <u>Talking</u></li> <li>• <u>Listening</u></li> <li>• <u>Writing</u></li> <li>• <u>Meetings</u> <ul style="list-style-type: none"> <li>Alternatives</li> <li>Prepare Agenda / Send Ahead</li> <li>Start / Finish on Time</li> <li>Short 'n Sweet</li> <li>Prepare</li> <li>Confirm</li> </ul> </li> </ul>	<p><b><u>Communication</u></b></p> 

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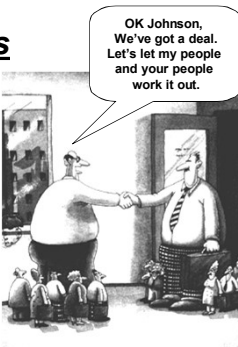
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 <b>APPA Institute</b> Design Project Management	<b>Fees</b>
<p><b><u>Negotiations &amp; Fees</u></b></p> <ul style="list-style-type: none"> <li>• Fee Types</li> <li>• Fee Structure</li> <li>• Negotiating</li> </ul>	

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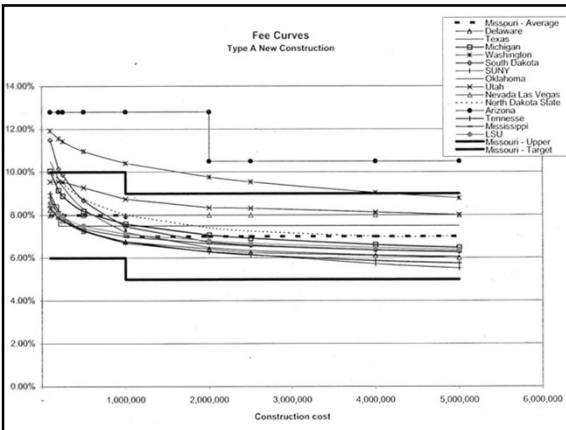
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	<b>APPA Institute</b> Design Project Management	<b>Fees</b>
<p style="text-align: center;"> <b>Fee % = <math>\frac{42.75}{\log AFC}</math></b> </p> <p style="text-align: center;">What's up with that?</p>		

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	<b>APPA Institute</b> Design Project Management	<b>Negotiations</b>
<p style="text-align: center;"><b><u>3 Types of Negotiations</u></b></p> <ul style="list-style-type: none"> <li>• Soft</li> <li>• Hard</li> <li>• Principled</li> </ul> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>My project is ready for grading, Mr. Bignose. Hey, I'm talking to you squidbrain!</p> </div> <div style="flex: 1;"> </div> </div>		

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Types of Negotiation			
	Soft Negotiation	Hard Negotiation	Principled
<b>The Goal</b>	Reaching and Agreement	Winning	Mutuality: A Wise Outcome
<b>Participants</b>	Friends	Adversaries	Problem Solvers
<b>About the Relationships</b>	Make concessions to cultivate the relationship	Demand concessions as a condition of it	Separate people from the problem
<b>Trust of Others</b>	You do	You do not	Proceed independent of trust
<b>Your position</b>	You change readily	You dig in and hold	Focus on interests, not on positions; explore interests
<b>Your bottom line</b>	You disclose	You hide and mislead about	Avoid having a bottom line
<b>To reach agreement</b>	You accept one-sided losses	You demand one-sided gains	Invent options for mutual gain
<b>You insist on</b>	Agreement	Your position	Insist on using objective criteria; yield only to principle
<b>Contest of Wills</b>	You try to avoid	You try to win	
<b>Pressure</b>	You yield to	You apply	
<b>The Architect's Fear</b>	I'll probably lose	I'll endanger the relationship	

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**APPA Institute**  
 Design Project Management

**Tool Kit**

**Design Process**  
**Tool Kit**



**Project Manager**  
**Multi-Tasking**  
**Module**



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**APPA Institute**  
 Design Project Management

**Tool Kit**

- Consultant Instructions



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**Consultant's Information Packet**

**Table of Contents**

- Cover Letter
- Communicating
- Project Contact List
- Capital Construction Process
- Reviews of Architectural Plans and Specifications
- Academic Calendars
- Other Materials:
  - Campus Master Plan
  - Campus Parking Map
  - Campus Visitor Map
  - Body & Soul: Architectural Style at the University of Colorado at Boulder

**Cover Letter:**  
The Consultant's Information Packet is available to help designers understand the process and procedures of the University of Colorado at Boulder.

Please review this material before the kick-off meeting so that we may answer any questions you may have. Be sure as you start this project, that you have a complete and current copy of the UCB (University of Colorado at Boulder) Standards. These have been put together to assist you, sharing with you our experience and needs. These standards are frequently updated and it is important that you use the most up-to-date version in preparing plans and specifications. Also, let us share a couple of key thoughts about your project team and project management on campus:

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> </ul>		

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 <b>APPA Institute</b> Design Project Management	<b>Tool Kit</b>

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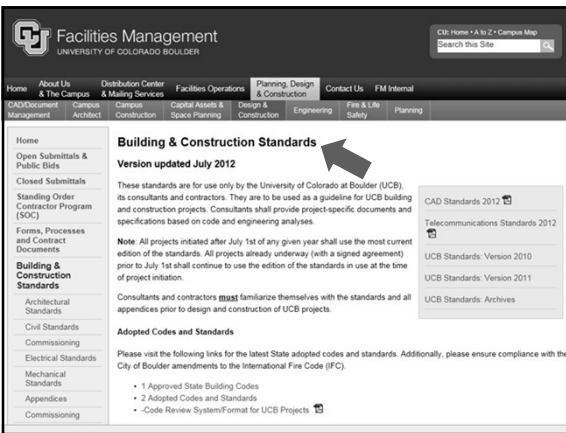
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**Building & Construction Standards**  
Version updated July 2012

These standards are for use only by the University of Colorado at Boulder (UCB), its consultants and contractors. They are to be used as a guideline for UCB building and construction projects. Consultants shall provide project-specific documents and specifications based on code and engineering analyses.

**Note:** All projects initiated after July 1st of any given year shall use the most current edition of the standards. All projects already underway (with a signed agreement) prior to July 1st shall continue to use the edition of the standards in use at the time of project initiation.

Consultants and contractors **must** familiarize themselves with the standards and all appendices prior to design and construction of UCB projects.

**Adopted Codes and Standards**

Please visit the following links for the latest State adopted codes and standards. Additionally, please ensure compliance with the City of Boulder amendments to the International Fire Code (IFC).

- 1 Approved State Building Codes
- 2 Adopted Codes and Standards
- Code Review System Format for UCB Projects

**Standards and Guidelines:**

- CAD Standards 2012
- Telecommunications Standards 2012
- UCB Standards: Version 2010
- UCB Standards: Version 2011
- UCB Standards: Archives

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**Design and Construction Standards and University Architect's Campus Design Guidelines**

Download additional standards and design guidelines using links to the right of this page.

**Design and Construction Standards:**

Emory's Design and Construction Standards provide architects, engineers, design consultants and contractors with specific standards and specifications for construction activity on Emory University property. They serve to summarize principles unique to the University's aesthetic and structural preferences, specialized nature of each facility, requirements applied by the University's insurance carrier, and knowledge gained from experience with construction, operations and maintenance issues.

For further information about Emory's Design and Construction Standards, contact Stuart Adler at 404.727.4784.

**Standards and Guidelines:**

- Design and Construction Standards
- Document Delivery Standards
- Architectural Floor Plan Template.dwg
- Evacuation Template.dwg
- UTS Communication Standards

**GUIDELINES:**

- Campus Master Plan Information
- 2012 Draft Campus Design Guidelines
- College Classroom Design Guidelines

**SUSTAINABILITY:**

- Sustainability Design Reporting Part 1
- Sustainability Design Reporting Part 2
- Green Building Sustainability Initiatives
- Emory Green Cleaning Manual

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
	<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> </ul>	

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Construction Costs										
University of Colorado at Boulder										
Pre-Design Estimate										
Date of estimate: 10/01/2019										
Addition rate per year: 1.00%										
Item	New Area (ASIF)	Estimated GRP	Scope Factor	ASIF/GRP Factor	2011 Cost	Construction Adjustment	Projected Construction Cost		Estimated GRP	
A. New Construction										
Type A Space	0	0	17	1.1	\$175,000				0	
Type B Space	0	0	17	1.1	\$100,000				0	
Type C Space	0	0	17	1.5	\$119,000				0	
Type D Space	0	0	17	1.5	\$104,000				0	
Type E Space	0	0	17	1.5	\$209,000				0	
Type F Space	0	0	17	1.8	\$104,000				0	
Type G Space	0	0	17	1.8	\$104,000				0	
Other (1)	0	0	17	1.8	\$104,000				0	
Other (2)	0	0	17	1.8	\$104,000				0	
Other (3)	0	0	17	1.8	\$104,000				0	
Sub-Total New Construction	0	0					\$0		\$0	8.76
B. Building Renovation										
Type A Space					\$175,000					
Type B Space					\$100,000					
Type C Space					\$119,000					
Type D Space					\$104,000					
Type E Space					\$209,000					
Type F Space					\$104,000					
Type G Space					\$104,000					
Other (4)					\$104,000					
Other (5)					\$104,000					
Other (6)					\$104,000					
Sub-Total Renovation	0						\$0			
C. Special Renovation										
Other (7)										
Other (8)										
Other (9)										
Other (10)										
Sub-Total Special Construction							\$0			
D. Description of Other Construction										
Other (11)										

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
	<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> </ul>	

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 <b>Facilities Management</b> University of Colorado at Boulder <i>Planning, Design &amp; Construction</i> <b>Project Management Service Options</b>  <b>1. Minimum service level:</b> In this service option, the client can provide the project management and coordination services for their project with the following minimum involvement from Facilities Management: <ul style="list-style-type: none"> <li>➤ Contracts &amp; procurement,</li> <li>➤ Construction permitting,</li> <li>➤ Inspections,</li> <li>➤ Change order processing (the client can negotiate change order costs),</li> <li>➤ Environmental site assessment and abatement requirements through EH&amp;S,</li> <li>➤ Projects must adhere to the UCB construction standards with deviations specifically approved by the Executive Director of FM and FM must have the ability to verify compliance,</li> <li>➤ Utility outages,</li> <li>➤ Code compliance including project reviews by code officials (Authorities Having Jurisdiction).</li> </ul> <b>2. Intermediate service level:</b> In this service option, FM must provide the minimum levels of services as outlined in service option 1 and the client can negotiate with FM for the level of services for the following: <ul style="list-style-type: none"> <li>➤ Project budgeting and estimating,</li> <li>➤ Project schedule,</li> </ul>
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 <b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> </ul>	

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<b>SCHEDULED WORK ACTIVITY AND SIDEWALK /VEHICULAR OUTAGE AT West Pleasant Street</b>  <b>To:</b> Linda Fry -Hale Sciences Proctor  <b>From:</b> Gil Fike, Project Manager  <b>Building:</b> Hale, McKenna, and Old Main Buildings  <b>Start Date:</b> Wednesday, August 14, and Thursday August 15, 2012  <b>Duration:</b> Full Time Pedestrian Walkway and Vehicular Traffic Interruptions 8/14/02 to 8/16/02  <b>Reason:</b> Contractor will excavate and install the new water line in the lawn area west of Hale Science Building. The traffic lane will be reduced to one lane and could experience minor delays during work activities and equipment crossings. Barricades and routing signs will be in place. The parking spaces west of the Hale will be out of service. The service drive to Hale will be kept open and in service.  See the attached work activity sketch work area description. Machinery noise may occur during the work activity.  <b>Contact:</b> Gil Fike at 2-1431 for any questions.  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Customer Impact:</b>  <i>This project will change the flow of pedestrian traffic</i>  <i>For the period specified.</i> </div> <div style="text-align: right; margin-top: 10px;"> <b>Attached Map</b> </div>	
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APPA Institute Design Project Management	Tool Kit
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> </ul>	

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APPA Institute Design Project Management	Tool Kit
<p><b><u>Design Reviews</u></b></p> <p>Aesthetics Systems Concepts Maintainability Value Engineering Budget Schedule Approvals</p>	<p><b>Schematic Design</b></p> <p>"Orifice Building"</p> 

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Review Reminders for the Client
<p><b>Program Plan Review:</b></p> <ol style="list-style-type: none"> <li>1. Are client needs identified and met?</li> <li>2. Is this affordable?</li> <li>3. Will the schedule allow the facility to be delivered on a timely basis?</li> <li>4. Have others in the department(s) or college reviewed this as needed?</li> <li>5. Is the plan convincing for reviewers (up through CCHE)?</li> </ol> <p><b>Schematic Design Review:</b></p> <ol style="list-style-type: none"> <li>1. Does the layout work?</li> <li>2. Are aesthetics OK?</li> <li>3. Is it in budget?</li> <li>4. Are systems (e.g., heating / cooling) meeting user needs?</li> <li>5. Have others in the department(s) or college reviewed this as needed?</li> </ol>

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[illegible]

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Review Comments			
<p>RFW SET: 375  DOOR NUMBER: X317A X315A X355</p>			
EACH TO HAVE:			
1	EA	HINGE	SBBIHV
4	EA	POWER TRANSFER	RPT-H
1	EA	PERM-MORTISE CYL	OWNER FURNISHED - GC INSTALLED
4	EA	LOCK-SAFE LOCK SET	14082EL ON (WITH TEMP. CONSTRUCTION CYLINDER)
1	EA	CLASSROOM LOCK	1407M (ON (WITH TEMP. CONSTRUCTION CYLINDER)
1	EA	CLOSER WITH H.O. ARM	4041 SBHUS7 - ST-1595
1	EA	KICK PLATE	840-121 HIGH (BIS)
1	EA	SEALS	700SA AT HEAD - NOTHING BEFORE SURFACE CLOSER
2	EA	SEALS	700SA AT JAMBS
1	EA	DOOR BOTTOM	119NA - NOTCH FOR FRAME STOP.
			COORDINATE WITH KP
1	EA	DRIP CAP	16A X FRAME WIDTH
1	EA	THRESHOLD	611 SLA - OR AS SHOWN AT SILL DETAIL
4	EA	LOCK-POWER SUPPLY	BY OTHERS
4	EA	CONSE-MORTISE-CYL	BY SUPPLIER AT KEY-SWITCH
4	EA	PERM-MORTISE-CYL	OWNER FURNISHED - GC INSTALLED - AT KEY-SWITCH
			453-68
4	EA	KEY-SWITCH	AS REQUIRED BY SUPPLIER FOR
4	EA	JOBSITE SUPERVISION	ELECTRICAL PRODUCTS
			POINT-TO-POINT WIRING DIAGRAM - AS REQUIRED
4	EA	WIRING DIAGRAM	DLR
<p>SEQUENCE OF OPERATION-KEY SWITCH UNLOCKS BOTH LEVERS-FIRE-ARM UNLOCKS BOTH LEVERS FOR EGRESS-FROM EGRESS IF DOORS HAVE BE PREPARED FOR THE SCLHAGE 14082EL FURNISH A DUMMY CYLINDER</p>			


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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> <li>• Project Checklists</li> </ul>		

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 <b>Facilities Management</b> University of Colorado at Boulder	
<b>Department of Facilities Management</b> <b>Office of Planning, Design &amp; Construction</b> 1540 39 <sup>th</sup> Street, UCB 453, Boulder, Colorado 80309-0453 Phone: (303) 492-5511 FAX: (303) 492-4082	
<b>Project Task Checklist</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Client initiates Work Order.</li> <li><input type="checkbox"/> Assistant Director receives Work Order from Facilities Management (FM) scheduling system.</li> <li><input type="checkbox"/> The Project Manager (PM) receives a file folder from Administrative Assistant. Include a Work Order Information Sheet, Work Order Questionnaire and Warranty Report.</li> <li><input type="checkbox"/> PM meets with Client to establish the scope of the project.           <ul style="list-style-type: none"> <li>a. PM also talks with them about the recharge policy as referenced in the FM, Design and Construction website. (fm.Colorado.EDU/recharge_policy.html )</li> </ul> </li> <li><input type="checkbox"/> The Work Order Questionnaire is distributed by PM to Facilities Management and other University Agencies for review. 2 weeks allowed for review.</li> <li><input type="checkbox"/> Environmental Site Assessment Report is done by Environmental Health and Safety (EH &amp; S). 2</li> </ul>	

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> <li>• Project Checklists</li> <li>• Feedback &amp; Evaluations</li> </ul>		

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**Facilities Management**  
University of Colorado at Boulder

Department of Facilities Management  
Office of Planning, Design & Construction

1540 30<sup>th</sup> Street, UCB 453, Boulder, Colorado 80309-0453  
Phone: (303) 492-5511  
FAX: (303) 492-4082

**CONTRACTOR EVALUATION FORM**

CONTRACTOR: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE #: \_\_\_\_\_

As part of our ongoing commitment to provide better service to our customers, we need to insure that the services we purchase are of the best quality possible and that they are performed in a timely and professional manner.

Please describe your experiences with the contractor named on this form (both positive and negative). The contractor may be given the opportunity to respond.

Describe fully the experience (including dates and any documentation you might have):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**Facilities Management**  
University of Colorado at Boulder

Department of Facilities Management  
Office of Planning, Design & Construction

1540 30<sup>th</sup> Street, UCB 453, Boulder, Colorado 80309-0453  
Phone: (303) 492-5511  
FAX: (303) 492-4082

[PROJECT TITLE]  
**Architect / Engineer Evaluation**

FIRM'S NAME: \_\_\_\_\_

**INSTRUCTIONS:**

- The performance of each A/E under contract to the University of Colorado at Boulder evaluated following the completion of the project.
- The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate the attached Architect/Engineer Evaluation Forms. The A/E firm will be formally ev by the project team, including representatives from FD&C, Facilities Planning, F Engineering & Utilities, Physical Plant Division, Facility User(s), and others , appropriate at the completion of each major project phase (preconstruction, const

**Customer Satisfaction Survey**

**Facilities Management**  
University of Colorado at Boulder


Department of Facilities Management  
Office of Planning, Design & Construction

1540 30<sup>th</sup> Street, UCB 453, Boulder, Colorado 80309-0453  
Phone: (303) 492-5511  
FAX: (303) 492-4082

Web site: <http://fm.Colorado.EDU/>

Dear CU Faculty/Staff Member:

We are striving to improve the quality of our service and increasing customer satisfaction. To help us in doing this, please respond to each question as it is imperative that all answers reflect your experience with us.

Sincerely,  
  
Steve Thross, AIA  
Director, Office of Planning, Design & Construction

Name of Project: \_\_\_\_\_ Completion Date: \_\_\_\_\_ Project Manager: \_\_\_\_\_

Work Order: \_\_\_\_\_ Responder / Project Responsibility: \_\_\_\_\_

1. How do you feel about the scheduling of the work to complete this project?  
☐ Work was scheduled appropriately in advance.  
☐ Worker(s) began without sufficient notice.  
☐ Scheduling caused an avoidable disruption.  
☐ Does not apply.

2. Was the work completed on a timely basis?  
☐ Response to work request was prompt and efficient.  
☐ Response to work request was slow and inefficient.



Planning, Design & Construction Performance Survey - Windows Internet Explorer

2. Planning, Design & Construction

The questions on this page are related to department performance. The following page will focus on the Project Manager's performance.

3. How did Planning Design & Construction department management perform?

	Unacceptable	Needs Improvement	Satisfactory	Very Good	Exceptional
Project staffed appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM assigned promptly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Supported project adequately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Responded in a timely manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>				

Post

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HURT FEELINGS REPORT			
For use of this form to file a grievance for hurt feelings			
DATA REQUIRED BY THE PRIVACY ACT OF 1974			
AUTHORITY:	5 USC 301, Department Regulations; 10 USC 3013		
PRINCIPAL PURPOSE:	To assist whiners in documenting hurt feelings and to provide leaders with a list of people who require counseling and sympathy.		
ROUTINE USES:	For subordinate leader development IAW FM 22-102. Leaders & whiners should use this form as		
DISCLOSURE:	Disclosure is voluntary, but repeated disclosure may result in a Wall to Wall Counseling		
PART I - ADMINISTRATIVE DATA			
A. WHINER'S NAME (Last, First, M.I.)	B. Position	C. SOCIAL SECURITY NUMBER	D. DATE OF REPORT
E. ORGANIZATION		F. NAME & TITLE OF THE PERSON FILLING OUT THIS FORM	
PART II - INCIDENT REPORT			
A. DATE FEELINGS WERE HURT	B. TIME OF HURTFULNESS	C. LOCATION OF HURTFUL INCIDENT	
D. WITNESSES OF HURT FEELINGS		E. NAME OF REAL MAN/WOMAN WHO HURT YOUR SENSITIVE FEELINGS	
F. POSITION		G. ORGANIZATION (if different from # above)	
E. INJURY (Mark all that apply)			
1. WHICH EAR WERE THE WORDS OF HURTFULNESS SPOKEN INTO?		2. IS THERE PERMANENT FEELING DAMAGE?	
Left Right Both		YES NO MAYBE	
3. DID YOU REQUIRE A "TISSUE" FOR TEARS?		4. HAS THIS RESULTED IN A TRAUMATIC BRAIN INJURY?	
YES NO MULTIPLE		YES NO MAYBE	
F. REASON FOR FILING THIS REPORT (Mark all that apply)			

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APPA Institute Design Project Management	Tool Kit
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> <li>• Project Checklists</li> <li>• Feedback &amp; Evaluations</li> <li>• Housing Special Conditions</li> </ul>	

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 <p><b>University of Colorado at Boulder</b> Department of Housing</p> <p><b>Special Contract Conditions for Construction Projects in Occupied Students Housing</b></p> <p><b>Purpose</b> These Special Contract Conditions are required because this project involves construction within or adjacent to student residences. As such, the Contractor, all workers, subcontractors, deliverymen and anyone else coming on to the work site must be informed of the requirements to respect the students' privacy and right to the quiet enjoyment of their residence halls or apartments. The work must be completed in a manner that maintains the security of the residence halls or apartments, limits contact with the students, provides advance notice of any work that may adversely affect the residents, and limits communications about the project to those persons designated by the University.</p> <p><b>General Rules</b></p> <ol style="list-style-type: none"> <li>Contractor is required to comply with the University of Colorado's Sexual Harassment Policy, copy attached hereto and incorporated herein. Contractor's personnel must adhere to the University of Colorado policy and conduct themselves in a manner that does not constitute sexual harassment (as defined in the policy) as a result of interacting with and around the University of Colorado faculty, staff and students.  Contractor is also required to inform each subcontractor of the University's policy prohibiting sexual harassment.</li> <li>No smoking in any residence hall or apartment building spaces. This includes living and dining spa restrooms, circulation areas, attics, mechanical rooms, basements and/or crawl spaces. Any smoking is to be done outside the building and far enough away that smoke cannot enter windows or ventilation system.</li> </ol>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
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 <p><b>APPA Institute</b> Design Project Management</p>	<p><b>Tool Kit</b></p> <ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> <li>• Project Checklists</li> <li>• Feedback &amp; Evaluations</li> <li>• Housing Special Conditions</li> <li>• Double Time / Fast Track</li> </ul>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
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 <p><b>FAST TRACK</b></p> <p>June 7, 2006</p> <p>TO: FM Project Managers</p> <p>FROM: Bill Ward, Assistant Director, Facilities Management Design &amp; Construction Moe Tabrizi, Assistant Director, Facilities Management Engineering</p> <p>SUBJECT: <u>Double-time or Fast Track Projects</u></p> <p><b>Introduction:</b> Facilities Management leadership continues to receive campus client/customer feedback regarding time interval (length of time) to complete remodeling or new construction projects on campus. It is generally accepted that some delays are related to incomplete planning or incomplete input for required reviews and budget availability. However, due to the serial nature of our planning, design and construction process, adding all appropriate steps without unexpected delays would still amount to a long lead time. Many projects are not very time sensitive. However, there are a small number of projects that are very time sensitive AND there is only a small window of time that they can be implemented on campus without resulting great impact on the campus teaching and learning mission.</p> <p><b>Proposed Solution:</b> For a very small percent of the given client's projects and based on prior agreement with PD&amp;C leadership, all known and published project planning, design, project reviews and implementation intervals would be <u>shortened by a goal of 50%</u>, equally for all functions. Of course, this solution requires better than normal, more complete input from the client and more complete paperwork as input to the double-</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
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 <b>APPA Institute</b> Design Project Management	<b>Tool Kit</b>
<ul style="list-style-type: none"> <li>• Consultant Instructions</li> <li>• Design Guidelines</li> <li>• Construction Standards</li> <li>• Planning Template</li> <li>• Service Levels</li> <li>• Outage Notices</li> <li>• Design Reviews</li> <li>• Project Checklists</li> <li>• Feedback &amp; Evaluations</li> <li>• Housing Special Conditions</li> <li>• Double Time / Fast Track</li> <li>• Close-Out Checklist</li> </ul>	

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 <b>Facilities Management</b> University of Colorado at Boulder  Office of Design and Construction 1540 39 <sup>th</sup> Street, LSCB 403, Boulder, Colorado 80309-0403 Phone: (303) 442-2311 FAX: (303) 442-7186
<p align="center"><b><u>CM-GC PROJECT COMPLETION CHECKLIST</u></b></p> <p>The following is a guide to assist in the final closeout of a CM/GC project. The information is based on the Construction Manager and Architect/Engineer Agreements. Failure to include any items in this document does not alter the responsibility of the Construction Manager and Architect/Engineer to adhere to their Agreement they have with the University.</p> <p><b>NOTICE OF COMPLETION</b>          Articles 16.1.1 (CM) &amp; 1.8.28 (AE)</p> <ol style="list-style-type: none"> <li>1. The Construction Manager shall file a written notice to the Architect/Engineer that the Work, in the opinion of the Construction Manager, is complete under the terms of the Contract.</li> <li>2. The Construction Manager shall attach a list of items to be completed or corrected with this letter.</li> <li>3. The Architect/Engineer shall notify the Project Manager.</li> </ol> <p><b>PUNCH LIST WALK</b>          Articles 16.1.2 (CM) &amp; 1.8.29 (AE)</p> <ol style="list-style-type: none"> <li>1. Within ten (10) days after receipt of the above mentioned letter the Architect/Engineer, the</li> </ol>

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Project Checklist														
EMORY UNIVERSITY - CAMPUS SERVICES BUILDING ACCEPTANCE - OCCUPANCY APPROVAL CHECKLIST														
PROJECT LEADERS Primary Responsibility Support Responsibility		PROJECT MANAGER FACILITIES MANAGER COMMUNITY COORDINATOR												
TEAM INVOLVEMENT	ACTIVITY	NOTICE PROJECT	DATE (MM/YY)	DATE EVENT	PROJECT MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN	ASST MAN
C-1	Construction Tests													
C-1.1	Wall Assembly Test													
C-1.2	Window Assembly Water Test													
C-1.3	Roof Leakage Test													
C-1.4	Roof Leakage Test													
C-1.5	Roof Leakage Test													
C-2	Fire alarm inspection by Engineer / Consultant and system Certification by independent (NFPA 72)													
C-3	Elevator inspection by Consultant, POC Project Manager and OSHA Safety Coordinator (OSHA 1910.33)													
C-4	Final inspection by POC Project Manager and POC Safety Coordinator and POC													
C-5	Final inspection by POC Project Manager and POC Safety Coordinator and POC													
C-6	Final inspection by POC Project Manager and POC Safety Coordinator and POC													
C-7	Final inspection by POC Project Manager and POC Safety Coordinator and POC													
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 <b>APPA Institute</b> Design Project Management	<b>Tool Kit</b>
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**You are cordially invited to a key party--**  
**Project Management & Construction**  
**will officially turn over the**

**Turman Residence Hall**

**to Facilities Management**  
**Monday, August 13, 2007, 1:00 pm**  
**Turman Residence Hall**  
**First Floor Lobby**  
**640 Means Drive**



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**Let the Party Begin**

**Signing the Close-out Documents**



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 <b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
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<div style="text-align: center;">  <b>EMORY</b>  <small>UNIVERSITY</small> </div> <p style="text-align: center;"><b>Lessons Learned - Math and Science Center</b> January 9, 2003</p> <p>1. <b>More user group education needed</b>– at the end of the building process, I knew the things I needed to know at the start of the process! Here are the types of user education/support that would have been useful during the building process:</p> <p style="margin-left: 40px;">A. General introduction to the stages of the building process (programming, schematic design, design development, construction, etc). The introduction should include: role of user group at each stage (including the importance of user's comments on plans); level of detail of the plans that emerges at each stage; processes and procedures for making changes to the plans; and the role of LEED in the design process.</p> <p style="margin-left: 40px;">B. Although trips to other institutions may be useful, we should institute an on-campus training program for new user groups. We have some great new facilities on campus and we should use them effectively. For example, a tour of the Mathematics and Science Center (M&amp;SC) could illustrate:</p> <p style="margin-left: 80px;">a. General departmental layout</p>	
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 <b>APPA Institute</b> <b>Design Project Management</b>	<b>Tool Kit</b>
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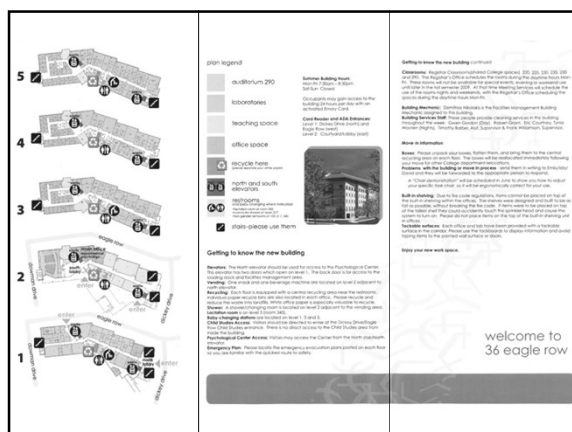
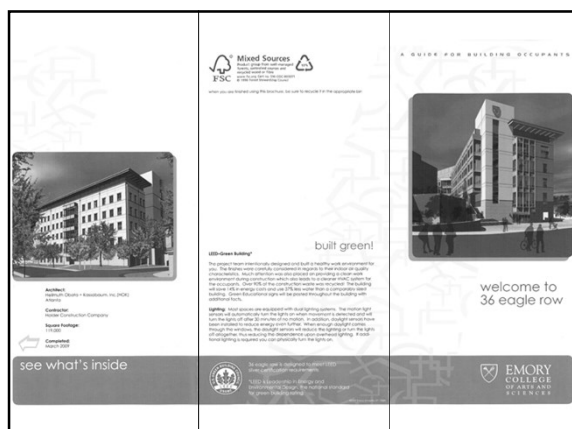
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	<p><b>Project Management</b></p>
<p><b><u>Part 4 -Managing The Process</u></b></p> <ul style="list-style-type: none"><li>• Project Management</li><li>• Project Managers</li><li>• Project Budgeting</li></ul> 	

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Project</b> <b>Management</b>
<div data-bbox="417 921 553 947" style="text-align: center;"> <h2><u>What Is It ?</u></h2> </div> <div data-bbox="302 955 678 1016" style="text-align: center;"> <p><i><b>“The balancing of design, schedule and budget to meet the clients expectations”</b></i></p> </div> <div data-bbox="302 1020 638 1234" style="text-align: center;">  </div> <div data-bbox="670 1045 732 1083" style="text-align: right;"> <p><b>Project Manager</b></p> </div>		

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	<b>APPA Institute</b> Design Project Management	<b>Project Management</b>
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## **Who Are They?**

- Design Team
- Owner
- Contractor

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	<b>APPA Institute</b> Design Project Management	<b>Traits of the Owner's PM</b>
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## **Traits of a Good PM**

- Organized
- Broad Based
- Good Communicator (listener)
- Proactive
- Leads by Example
- Consistent
- Follows Through
- Holds People Accountable
- Delegates Well
- Patient & Wise

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	<b>APPA Institute</b> Design Project Management	<b>PM Pitfalls</b>
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## **PM Pitfalls**

- Delegation Errors
  - No One Can do Better
  - It's Faster
  - I Have to Fix it Anyway
  - It Takes too Long to Explain
  - I'll be Disappointed
  - I'm Not in Control
  - It Won't be Perfect

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<b>APPA Institute</b> Design Project Management	<b>PM Pitfalls</b>
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <h2 style="margin: 0;"><u><b>PM Pitfalls</b></u></h2> <ul style="list-style-type: none"> <li>Delegation Errors</li> <li>Micro vs. Macro</li> <li>Analysis vs. Synthesis</li> <li>SOP vs. Flexibility</li> <li>PM vs. PM</li> <li>Image vs. Substance</li> </ul> </div> <div style="flex: 1; text-align: center;"> </div> </div>	

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<b>APPA Institute</b> Design Project Management	<b>PM Tips</b>
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <h2 style="margin: 0;"><u><b>PM Tips</b></u></h2> <p style="margin: 5px 0;">From the mouth of babe's...</p> </div> <div style="flex: 1;"></div> </div>	

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<b>APPA Institute</b> Design Project Management	<b>PM Tips</b>
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <h2 style="margin: 0;"><u><b>PM Tips</b></u></h2> <p style="margin: 5px 0;">From the mouth of babe's...</p> </div> <div style="flex: 1;"></div> </div>	

**From:** Steven C. Thomas  
**To:** Steven C. Thomas  
**Subject:** Customer Service Best Practices  
**Date:** Sunday, June 02, 2013 1:37:46 PM

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Paul,

First, thank you for this nice email. I don't know that I have done anything special here, I have just tried to follow basic project management principals. Here are a few examples:

- Clear, constant communication** - this has involved face to face communication and phone calls rather than just emails. I also did send the Client emails summarizing the project progress made every few days. He would then forward these onto his superior
- Follow Through** - I try to say what I will do and do what I say. If I promise something to the Client, I try hard to follow up on my promise.
- Lead by example** - When challenged by the Client to have a Change Order free Tower portion of the project, I asked the consultant to meet me in the space with his 100% documents. We discovered that there was a lot lacking in his drawings. Taking 100% drawings out to the field and reviewing them in the space to be renovated was something that I used to do when I was working as an architect on Campus.
- Positive Attitude** - Although the Client can be challenging, I have enjoyed working with him and I try to be positive about my work on this project.
- Tell it like it is** - I am not afraid to give my opinion to the Client. When I think he is making an error, I tell him. He decided to leave some of the VAT flooring rather than abate it and I told him I thought that was a mistake. We are going to have to have some tough discussions in the Tower portion of the project. From a building envelope view point, this space is a 60's mess. We shouldn't spend \$500K on the Conference Center if people are going to be too hot, or too cold in the space.

Although this project is far from over, hopefully we are off on the right foot with the Client. I hope this is what you were looking for.

Peter

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 <b>APPA Institute</b> Design Project Management	<b>PM Tips</b>
<u>Managing Client Relations</u>	
<i>Leadership</i>	<i>Management</i>
<ol style="list-style-type: none"> <li>1. Know your client personally</li> <li>2. Understand your client</li> <li>3. Be a partner</li> <li>4. Foster Trust</li> <li>5. Demonstrate credibility</li> <li>6. Anticipate – don't react</li> </ol>	<ol style="list-style-type: none"> <li>1. Keep your files organized</li> <li>2. Respond to requests promptly</li> <li>3. Meet your commitments</li> <li>4. Issue regular progress reports</li> <li>5. Be persistent when you need input</li> </ol>
<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;"> <b>Most important – No Surprises!</b> </div>	

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 <b>APPA Institute</b> Design Project Management	<b>Managing the Project</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p><b><u>Managing the Project</u></b></p> <p>Develop Project Mgt. Plan (PMP)</p> <ul style="list-style-type: none"> <li>• The 90/10 Rule</li> </ul> </div> <div style="width: 55%;"> </div> </div>	

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 <b>APPA Institute</b> Design Project Management	<b>Keys to Success</b>
<b>The 90/10 Rule</b>	

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Keys to Success</b>
<ul style="list-style-type: none"> <li>• PMP (Understand Project and Desired Outcomes)             <ul style="list-style-type: none"> <li>• Vision/Goals/Objectives / Critical Factors for Success</li> <li>• Communication Plan</li> <li>• Scope</li> <li>• Schedule</li> <li>• Financial Plan</li> <li>• Quality Control Process</li> <li>• Change Management Process</li> </ul> </li> <li>• Involve Key Stakeholders</li> <li>• Identify Constraints</li> <li>• Assemble Team / Empower the Team</li> <li>• Resolve Conflicts</li> <li>• Encourage Risk Taking</li> </ul>		

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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Budgeting</b>
<div data-bbox="224 955 495 997"> <h3><u><b>Project Budgeting</b></u></h3> </div> <div data-bbox="224 1029 462 1186"> <ul style="list-style-type: none"> <li>• Cost Management Principles             <ul style="list-style-type: none"> <li>• Realistic Expectations</li> <li>• Cost Data</li> <li>• Scope Control</li> </ul> </li> </ul> </div> <div data-bbox="527 934 763 1207">  </div>		

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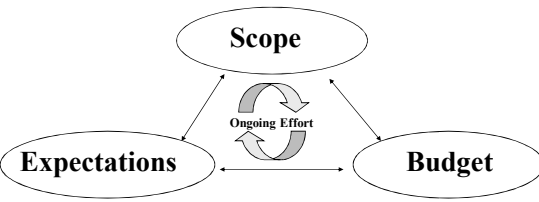
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	<b>APPA Institute</b> <b>Design Project Management</b>	<b>Budgeting</b>
<div data-bbox="397 1501 576 1543"> <h3><u><b>Alignment</b></u></h3> </div> <div data-bbox="219 1564 755 1764">  </div> <div data-bbox="316 1774 657 1806"> <p><i>Projects Need to <u>Start</u> Right to <u>Finish</u> Right</i></p> </div>		

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