### Design Project Management



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(720) 525-8638

#### 1 - AIA Continuing Education Credit



AIA Continuing Education

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. 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.



#### **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.

#### AIA Continuing Education Provider

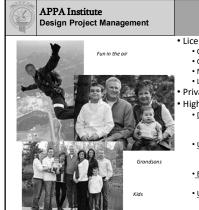
#### Learning Objectives

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



This concludes The American Institute of Architects Continuing Education Systems Course





- Licensed Architect
  - Colorado
  - Georgia
  - North Carolina
  - Louisiana
- Private Practice 15 years
- Higher Education 27+ Years
  - <u>Duke University</u> -6 Years
  - Director Facilities Design Office
     Assistant Dean Facilities
  - University of Colorado -13 Year

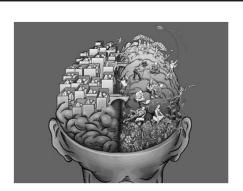
  - Director PDC
     Campus Architect
     Emory University 5- 1/2 Years
     AVP PDC
  - University of Colorado -3 Years
    - AVC Facilities
    - VC Administration



# **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/



Revenge of the Right Brain!

# What are your Goals? My Goals:

Understand the Design Process Manage the Design Process

#### **Architectural Education**



# DESIGN PROJECT MANAGEMENT

#### **Project**

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

#### <u>Seminar</u>

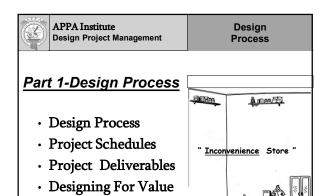
- Programming Complete
- · Project Approved
- · Project Funded
- Process Ends @ Bidding

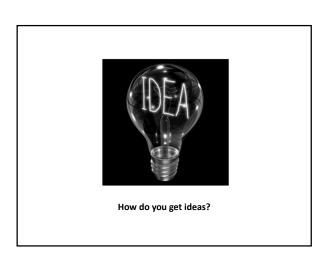


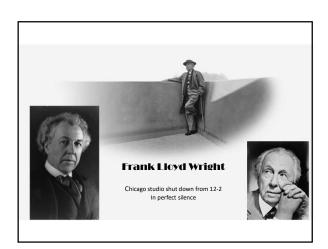
<u>Seminar</u> <u>Assumptions</u>

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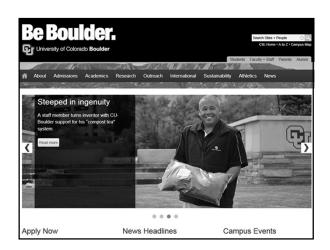
APPA Institute Design Project Management		
	1	
<u>Overview</u>	i i	
Design Process		
Project Team		
Design Process Tools  Deferred Maintenance		
Managing the Process or Capital Renewal?		
	_	
	1	
	]	

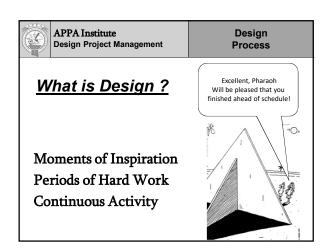


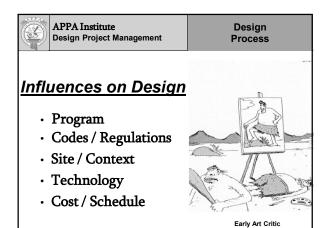




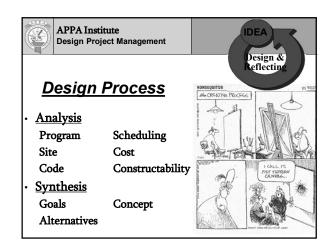


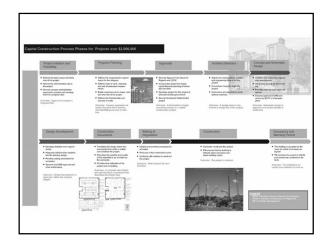


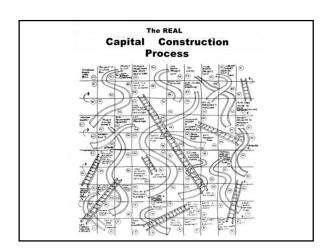


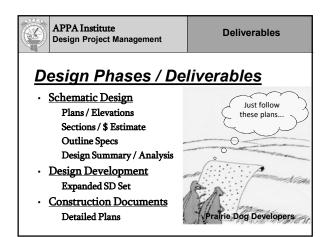


APPA Institute Design Project Management	Design Process
Influences on Design	
Program     Codes / Regulations	
Site / Context     Technology     Cost / Schedule	
· Client	Early Art Critic











#### <u>Design</u>

• All Project Phases

#### **Communicate**

- Client
  - Programming
- · Professionals
  - Schematic Design
  - Design Development
- Contractor
  - Contract Documents
  - Construction





APPA Institute
Design Project Management

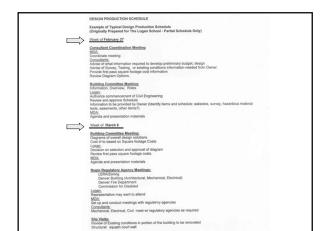
#### Schedules

#### **Project Schedules**

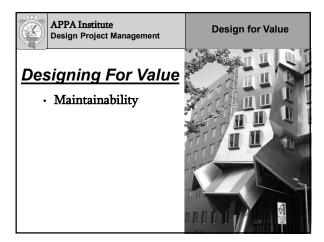
- · A/E Selection
- Contract Negotiations
- · Schematic Design
- · Design Development
- · Construction Documents
- · Bidding / Contract Award
- · Construction
- · Close Out
- · Warranty Period



At this rate...you'll never finish on tim

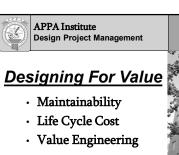


						1995
Activity	Duration	Start	Finish	Status	Jan Feb Mar Apr 8	May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May
	820d	1/1/95	2/20/98			
Project Funded	1 d	1/1/95	1/2/95		_	:
Architect Selection	6w	1/2/95	2/10/95		<i>111111</i> 2	1
Contract Negotiations	8w	2/10/95	4/6/95			
Schematic Design	10w	4/6/95	6/14/95			hum
SD Review	2w	6/14/95	6/27/95			22
Design Development	8w	6/27/95	8/21/95			WIIIIII
DD Review	2w	8/21/95	9/1/95			22
Construction Documents	8w	9/1/95	10/26/95			
CD Review	2d	10/26/95	10/27/95			1
Bidding	4w	10/27/95	11/23/95			7772
Contract Neotiations	6w	11/23/95	1/3/96			
Construction	52w	1/3/96	12/31/96			
Project Close-out	8w	12/31/96	2/24/97			
Warranty Completion	52w	2/24/97	2/20/98			
Warranty Completion	52w	2/24/97	2/20/98			
Manager: Mike Barden	0	ritical 💯		Progress	Su	immary •
Manager: Mike baroen Date: 5/16/95						











Design for Value





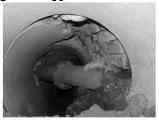
I call it "Value Shifting"



#### Design for Value

#### Value Management Approach

- <u>Tier 1</u>
  - Gypsum Board
  - Lighting Package
  - Direct Purchase
- · Tier 2
  - Relocate Plumbing
- <u>Tier 3</u>
  - Scope Reductions



"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

# APPA Institute Design Project Management

#### W. D. W.

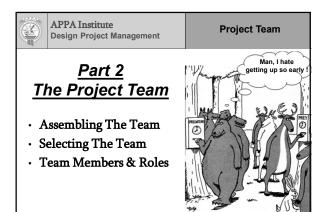
#### **Designing For Value**

- $\cdot \ Maintain ability$
- · Life Cycle Cost
- · Value Engineering
- · Present Value

# Design for Value



Oh big surprise.
Another announcement
of cost overruns and
delays.



# APPA Institute **Project Team** Design Project Management **Project Team**

- Owner
- Consultants
- Design Team
- · Construction Team
- · Supporting Cast



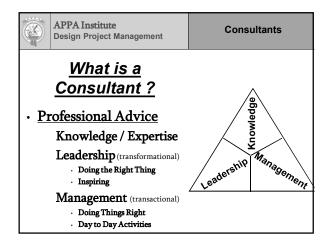
Wildlife Day Shifts

APPA Institute Design Project Management	Project Team
The Project Team Owners	We need a planning committee to create a task force to develop a team to determine the next step.
· Client	
<ul><li>User</li><li>Committees</li></ul>	
<ul> <li>Facilities</li> <li>Management</li> </ul>	GLASSERGEN 07

Others

APPA Institute Design Project Management	Project Team
Owners  • Experienced  Educated / Involved  Educated / Uninvolved  • Inexperienced  Uneducated / Involved	Educated  Paylovin  UI UU  Uneducated

APPA Institute Design Project Management	Project Team
Owners  • Experienced Educated / Involved Educated / Uninvolved • Inexperienced Uneducated / Involved Uneducated / Uninvolved	Educated  Biggs of the second





**Design Team** 

#### The Design Team

**Designers** Architect - Usually Prime



APPA Institute Design Project Management

#### **Design Team**

#### The Design Team

## TEN Deadly Sins 1. Team Changes

- 2. Multiple Contacts
- 3. Schedule Delays
- 4. Over Design
- 5. Negative Approach
- 6. Low Quality Product
- 7. Slow Response
- 8. Slow Review
- 9. Weak Leadership
- 10. Close Out





APPA Institute Design Project Management

#### What You Should Do

- Have a Clear Decision Making Process
- Develop a Complete Program
- Establish an Adequate B
- Establish a Realistic Sch
- Communicate Effectivel
- · Hire a Compatible Firm
- Guard Against Scope Creep
- Deliver Bad News Promptly
- Expect to Pay Reasonable Fees

The state of the s	adget edult	
	Beemer—\$28,000 Fire hose-\$300 Knocking the glass out of this	



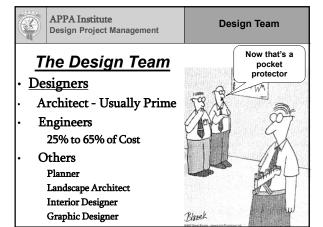
**Design Team** 

#### What You Should Not Do

- Do Not Rely on Clairvoyance
- Do Not Make Impossible Promises
- Do Not Accept Sloppy Work
- Do Not Expect Perfection
- Do Not Expect Added Scope for Free



APPA Institute Design Project Management	
Architect Expects	Architect May Get
Clear Direction	Ambiguity
<ul> <li>Instantaneous Decisions</li> </ul>	• Extensive Collaboration
Tightly Defined Scope	Scope Creep
Comfortable Budgets	<ul> <li>Inadequate Budgets</li> </ul>
Fair Treatment	<ul> <li>Unreasonable Contracts</li> </ul>
<ul> <li>Profitable Fees</li> </ul>	<ul> <li>Gift Opportunities</li> </ul>
<ul> <li>Quality Design Expectations</li> </ul>	<ul> <li>Low Design Expectations</li> </ul>
You Expect	You May Get
• Exceptional Service	Nonchalance
Adherence to Budgets	Budget Busters
<ul> <li>Meeting Schedule Milestones</li> </ul>	• Delays
<ul> <li>Comprehensive Services</li> </ul>	<ul> <li>Requests for Additional Fees</li> </ul>
<ul> <li>Complete Drawings</li> </ul>	<ul> <li>Errors &amp; Omissions</li> </ul>
<ul> <li>Cost Effective Design</li> </ul>	Extravagance



#### APPA Institute – Des. Proj. Mgt. - 405

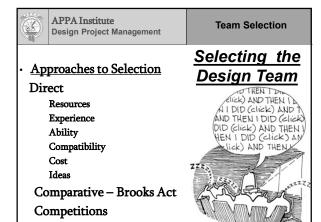


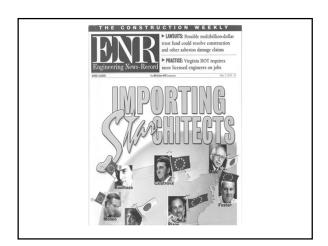
- GC avg. < 10 employees
- · Design Build
- · Construction Manager
- · Subcontractors
- Suppliers
- · Laborers

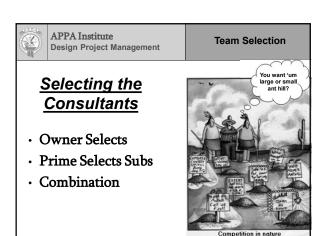




# APPA Institute Design Project Management The Project Team Supporting Cast Finance Accounting Insurance / Risk Mgt. Regulators Legal Others









**Process Tools** 

#### Part - 3 Design Process Tools

- · Communication
- Negotiations & Fees
- · Design Process Tools



|--|--|

APPA Institute Design Project Management

Communication

#### **Communication**

· Talking

· Listening

Effective communication

80%+ of project problems





APPA Institute Design Project Management

Communication

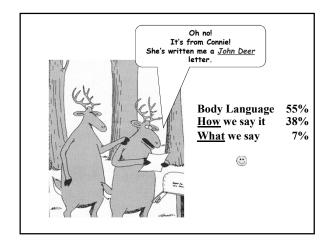
What we say to dogs
Okay, Ginger! Tive had it!
u stay out of the garbage!
u stay out of the garbage!
f the garbage, or else!

#### **Communication**

- · Talking
- · Listening (what not to do)

Mind Reader Rehearser Filterer Dreamer

Comparer Derailer Placator





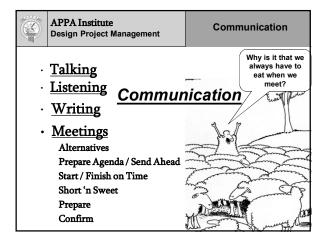
People Only <u>Hear</u> <u>Every 3<sup>rd</sup></u> Word

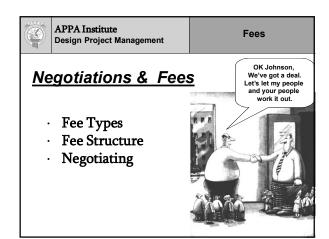
People Only <u>Retain</u> <u>Every 5<sup>th</sup></u> Word...

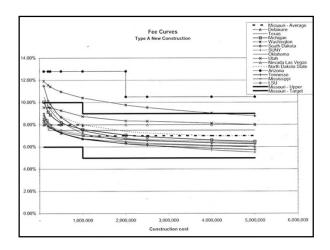
In fact....

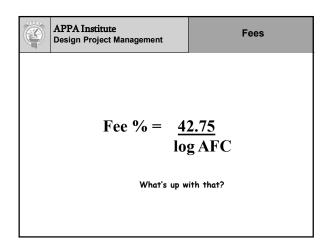
	APPA Institute Design Project Management	Communication
. ;	Talking Listening Writing Email Etiquette (Netiquette)  Use "reply all" Judiciously Refrain From Using !!!!! Avd txt msg'ng abrev Don'tuse Wallpaper AVOID ALL UPPER CASE Clear & Concise Think Before Sending Answer Promptly Avoid Unnecessary Attachments	FOX A GOOD THE SHARE SHE SHARE

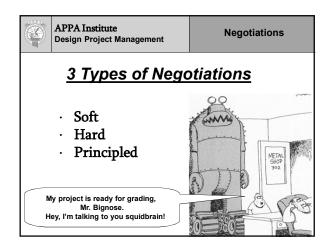






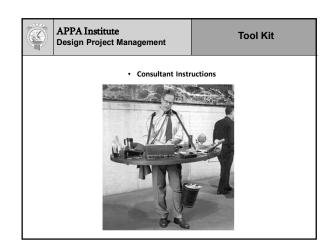






	Soft Negotiation	Hard Negotiation	Principled
The Goal	Reaching and Agreement	Winning .	Mutuality: A Wise Outcome
Participants	Friends	Adversaries	Problem Solvers
About the Relationships	Make concessions to cultivate the relationship	Demand concessions as a condition of it	Separate people from the problem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







#### 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.

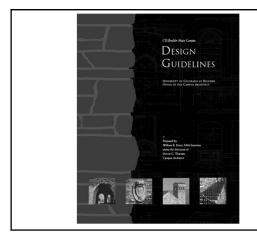
Please review this material before the kick-off meeting so that we may answer any questions you may have. Be sure as you start this project, that you have a complete and current copy of the UCB (University of Colorado at Boulder) Standards. These have been put together to assist you, shaing with you 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:

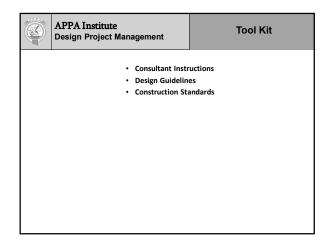


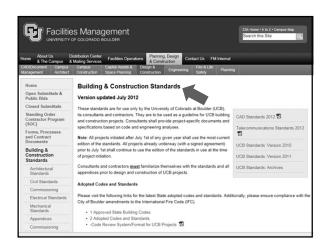
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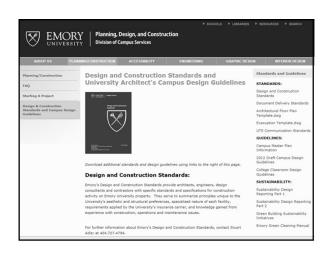
#### **Tool Kit**

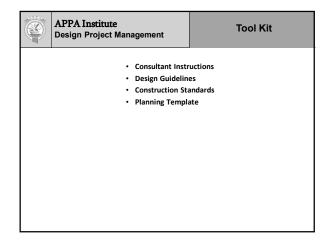
- · Consultant Instructions
- Design Guidelines



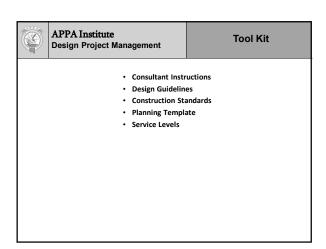








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Direct of Landson   Dire					
A		-			
Desc.   Description   Descri	_	-			
A. New Constitution   Col.					
Type   Space   0	1 Cost	Construction Midpoint Date	Projected Construction Cost		Estimated GSF
Open Shope					
Oye C Speec   O	\$75 /GS	P			0
Oye O Speed   O	103 /GS	P 8			0
Cype   Space   0	119 /GS				0
Opt 9 Space	164 /GS	P			0
Pyte CSpec   0   0   1   1   1   1   1   1   1   1	209 /GS	-			
Type OSnee	164 /GS				0
Obsert2    0   U	269 /GS	e e			0
1	/GS				0
Sub-Treach For Contention   0	/G8	-			0
Design   Control   Contr	/G8			Total Cost	
17 pt   18 ptec   17 pt   18 ptec   18 ptec			50	50	0 T
17 pt   18 ptec   17 pt   18 ptec   18 ptec	-	-			#DIV/0! I
Type   Space   S100	\$25 708		_		
Type C Speed   S119					-
Dye O Space					
Type   Space					
Type F Space   S312					
Type CSpace   Sant					
Chart   Char					-
Other(5) Other(6) Sub-T drail Remodeling 0 C. Special Remodeling	- CS				
Other (6) Sub-Total Remodeling 0  C. Special Remodeling	- 08				
Sub-Total Remodeling 0  C. Special Remodeling	GS				
C. Special Remodeling	-		50		
			-		
Other(8)					
Other(9)					
Other(10)					
Sub-Total Special Construction			30		



# Facilities Management

University of Colorado at Boulder

Planning, Design & Construction
Project Management Service Options

#### 1. Minimum service level:

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:

Contracts & procurement,
Construction permitting,
Inspections,

- Change order processing (the client can negotiate change order costs),
   Environmental site assessment and abatement requirements through EH&S,
   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,
- Utility outages,
   Code compliance including project reviews by code officials (Authorities Having Jurisdiction).

#### 2. Intermediate service level:

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:

Project budgeting and estimating,



#### **APPA Institute** Design Project Management

#### **Tool Kit**

- · Consultant Instructions
- · Design Guidelines
- Construction Standards
- · Planning Template
- Service Levels
- Outage Notices

SCHEDULED WORK ACTIVITY AND SIDEWALK /VEHICULAR OUTAGE AT West Pleasant Street

Linda Fry -Hale Sciences Proctor

From: Gil Fike, Project Manager

Building: Hale, McKenna, and Old Main Buildings

Start Date: Wednesday, August 14, and Thursday August 15, 2012

<u>Duration</u>: Full Time Pedestrian Walkway and Vehicular Traffic Interruptions 8/14/02 to 8/16/02

Reason:
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 onelane 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.

Contact: Gil Fike at 2-1431 for any questions.

<u>Customer Impact:</u> This project will change the flow of pedestrian traffic For the period specified.

**Attached Map** 



#### **Tool Kit**

- · Consultant Instructions
- Design Guidelines
- Construction Standards
- · Planning Template
- Service Levels
- Outage Notices
- Design Reviews

APPA Institute Design Project Manager	ment	Tool Kit
<u>Design Revie</u>	<u>ws</u>	Schematic Design
A4141		"Orifice Building"
Aesthetics		
Systems Concepts	100	
Maintainability	##F	
		That is one butt
Value Engineering	7/7/	ugly building!
Budget		* * *
Schedule		THE STATE OF
	IIII = F	
Approvals		E A A PS

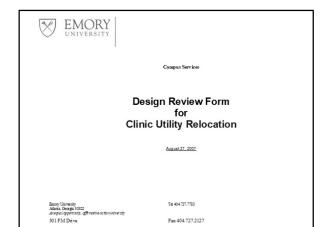
#### Review Reminders for the Client

#### Program Plan Review:

- 1. Are client needs identified and met?
- 2. Is this affordable?
- 3. Will the schedule allow the facility to be delivered on a timely basis?
- ${\bf 4.} \ \ {\bf H} \ ave \ others \ in \ the \ department (s) \ or \ college \ reviewed \ this \ as \ needed?$
- 5. Is the plan convincing for reviewers (up through CCHE)?

#### Schematic Design Review:

- 1. Does the layout work?
- 2. Are aesthetics OK?
- 3. Is it in budget?
- 4. Are systems (e.g., heating / cooling) meeting user needs?
- ${\bf 5.} \ \ {\bf Have\ others\ in\ the\ department} ({\bf s})\ or\ college\ reviewed\ this\ as\ needed?$



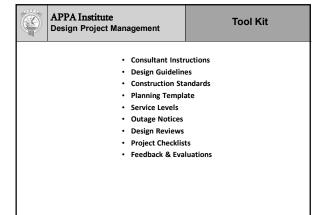
						Schematic Review Co	Design mments	Pack	age			
To:		Great Joh	nson			Date: 8/27/07						
Company: Emory Project:		Greg Johnson Newcomb & Boyd Suite 525 303 Peachtre Center Ave. NE Atants, GA 30303-1277			From: Address:	Bill Chatfield Emory University 301 FM Drive 45ans, GA 30322						
		Clin ic Utilities Relocation										
	Project #:				7							
Emory Building ID #:		n/a										
Item No.	From	Date Rec	Shee	V Spec	Commentissue				Response	Date Action Require		
SD-1	RManchester	1/30/06	M4.1	Exan	nple Text							
SD-2	T Bozeman	1/13/07	S3.1	Exan	nple Text							
				+								

		Review Com	ments Install door closers /	
			parallel arm mount	
			where possible. No	
HW SI	ET: 3	75	push pull side if	
		MBER:	closer can be	
X317.	A	X325A X355	mounted parallel	
			arm, Danny	
EACH			/	
		HINGE /	5BB1HW Gallegos	IVE
		POWER-TRANSFER	EPT-10	A:ON
		PERM MORTISE CYL	OWNER FURNISHED - GC INSTALLED	BYO
+	EA	FAIL SAFE LOCKSET	L9082LEL 03L (WITH TEMP. CONSTRUCTION	SCH
		CLASSROOM LOCK	CYLINDER)	SCH
1	LA	CLASSROOM LOCK	L9070L 03L (WITH TEMP. CONSTRUCTION CYLINDER)	SCH
,	F.4	CLOKER WITH H.O. ARM		LCN
		KICK PLATE	8400 12" HIGH (B3E)	IVE
		SEALS	700SA AT HEAD - INSTALL BEFORE SURFACE	NGP
	200	SERES	CLOSER	
2	EA	SEALS	700ES AT JAMBS	NGP
1	EA	DOOR BOTTOM	119NA - NOTCH FOR FRAME STOP.	NGP
			COORDINATE WITH KP	
1	EA	DRIP CAP	16A X FRAME WIDTH	NGP
1	EA	THRESHOLD	613 SIA - OR AS SHOWN AT SILL DETAIL	NGP
		LOCK POWER SUPPLY		SCE
		CONST MORTISE CYL	BY SUPPLIER AT KEY SWITCH	TBD
+	EA	PERM MORTISE-CYL	OWNER-FURNISHED—GC-INSTALLED—AT	BYO
			KEY-SWITCH	
		KEYSWITCH	653-04	SCE
+	£4	JOBSITE SUPERVISION		DLR
		HITTING DALLED LAN	ELECTRICAL PRODUCTS	nr n
*	Park.	WIRING DIAGRAM	POINT TO POINT WIRING DIAGRAM—AS	DLR
			REQUIRED ATTCH UNLOCKS BOTH LEVERS, FIRE ALARM 1	

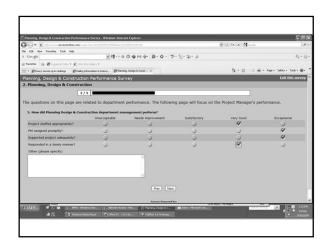
# APPA Institute Design Project Management - Consultant Instructions - Design Guidelines - Construction Standards - Planning Template - Service Levels - Outage Notices - Design Reviews - Project Checklists Project Checklists

, ,	
_	Client initiates Work Order.
	$Assistant\ Director\ receives\ Work\ Order\ from\ Facilities\ Management\ (FM)\ scheduling\ system.$
_	The Project Manager (PM) receives a file folder from Administrative Assistant. Include a Work Order Information Sheet, Work Order Questionnaire and Warranty Report.
_	PM meets with Client to establish the scope of the project.  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)
_	The Work Order Questionnaire is distributed by PM to Facilities Management and other University Agencies for review. 2 weeks allowed for review.
	Environmental Site Assessment Report is done by Environmental Health and Safety (EH & S). 2

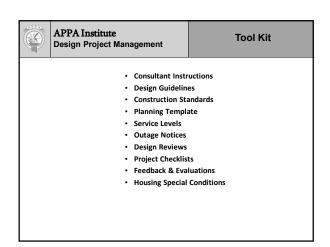
Project Task Checklist



€ Facilities	]
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 <u>describe your experiences with the contractor</u> 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):	
·	
- Facilities	1
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 IIILE] Architect / Engineer Evaluation	
FIRM'S NAME:	
INSTRUCTIONS:	
<ul> <li>The performance of each A/E under contract to the University of Colorado at Boulder evaluated following the completion of the project.</li> </ul>	
The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate  The Office of Facilities Design and Construction (FD&C) shall prepare all evaluate the Construction (FD&C) shall prepa	
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, Fa	
Engineering & Utilities, Physical Plant Division, Facility User(s), and others appropriate at the completion of each major project phase (preconstruction, consti-	
	-
	_
Customer Satisfaction Survey	
Facilities     Management     University of Colombia ts Bodder	
Department of Facilities Management Office of Flanning, Design & Construction	
1500 07 Steat OCH 80.1 Booklet Colonals 80109-0453 Phone (100) 87-0551 FAX: (100) 492-4902	
Web site: http://fm.Colorado.EDU/	
Dear CU Faculty: Staff Member:  We are striving to improve the quality 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,	
CHOSEN Steve Threatt, AUA Director, Office of Planning, Design & Construction	
Name of Project:	
CAMAIN SA CAUCES  Work Order:Completion Date:Peoject Manager  Rasponder Project Rasponsibility:	
Rasponder / Project Rasponsibility:  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.	
Sched ulting caused avoidable disruption. Does not apply:	
Was the work completed on a timely basis?     Reponse to work request was prompt and efficient.	



		HURT FEEL	LINGS REPORT						
	Foruse	of this form to file	a grievance fo	or hurt feelings					
	DA	TA REQUIRED BY T	HE PRIVACY AC	T OF 1974					
AUTHORITY: 5 USC 301, Department Regulations; 10 USC 3013									
PRINCIPAL PURPOSE:	To assist whiners counseling and s		t feelings and to	provide leaders with	ha list of people who require				
ROUTINE USES:	For subordinate I	eader development	IAW FM 22-102.	Leaders & whiners s	should use this form as				
DISCLOSURE:	Disclosure is volu	untary, but repeated	discloser may re	sult in a Wall to Wal	Il Counseling				
		PART I - ADMI	NISTRATIVE DA	TA					
A. WHINER'S NAME (	Last, First, M I)	B. Position	C. SOCIALS	C. SOCIAL SECURITY NUMBER D. DATE OF REPO					
E. ORGANIZATION			F. NAME & TITLE OF THE PERSON FILLING OUT THIS FO						
		DADTII IN	CIDENT REPORT						
A. DATE FEELINGS WE	RE HURT	B. TIME OF HUF	RTFULNESS	C. LOCATION OF F	HURTFUL INCIDENT				
D. WITNESSES OF HU	RT FEELINGS		E. NAME OF REAL MAN/WOMAN WHO HURT YOUR						
			SENSITIVE FEELINGS						
F. POSITION			G ORGANI	ZATION (if different fro	om te abouel				
1.703/110.4			G. C. G.	DATION	iii e abovej				
		E. INJURY (M	ark all that apply	1)					
1. WHICH EAR WE	RE THE WORDS OF	HURTFULNESS SPO	DKEN INTO?	2. IS THERE PERM	IANENT FEELING DAMAGE				
L	eft Right Both			YES NO	MAYBE				
3. DID YOU REQUIRE	A "TISSUE" FOR TEA	R5?	4. HAS THIS	RESULTED IN A TR	RAUMATIC BRAIN INJURY?				
				NO MAY					





University of Colorado at Boulder Department of Housing

Special Contract Conditions for Construction Projects in Occupied Students Housing

Purpose

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 secunity 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.

General Rules

1. 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.

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 crawf spaces. Any smoking i be done outside the building and far enough away that smoke cannot enter windows or ventilation system.



#### APPA Institute **Design Project Management**

**Tool Kit** 

- · Consultant Instructions
- · Design Guidelines
- Construction Standards
- · Planning Template
- Service Levels
- Outage Notices
- · Design Reviews
- Project Checklists
- Feedback & Evaluations
- · Housing Special Conditions
- Double Time / Fast Track





June 7, 2006

TO: FM Project Managers

FROM: Bill Ward, Assistant Director, Facilities Management Design & Construction Moe Tabrizi, Assistant Director, Facilities Management Engineering

SUBJECT: Double-time or Fast Track Projects

Introduction: 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 journation for required reviews and budget availability. However, due to the zerial nature of our planning, design and construction process, adding all appropriate test positions tu mexpected 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.

Proposed Solution: For a very small percent of the given client's projects and based on prior agreement with PD&C leadership, all known and published project planning, design project reviews and implementation intervals would be shortened by a goal of 50%, 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-



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- Double Time / Fast Track
- · Close-Out Checklist



Office of Design and Construction 1540 30° Street, UCB 433, Boulder, Colorado 80309-0453 Phone: (303) 492-5511 FAX: (303) 492-7186

#### CM-GC PROJECT COMPLETION CHECKLIST

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.

- NOTICE OF COMPLETION
  Articles 16.1.1 (CM) & 1.8.28 (AE)
  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.
  2. The Construction Manager shall attach a list of items to be completed or corrected with this letter.

- Inter-Construction Manager State Letter.

  The Architect/Engineer shall notify the Project Manager.

PUNCH LIST WALK
Articles 16.1.2 (CM) & 1.8.29 (AE)

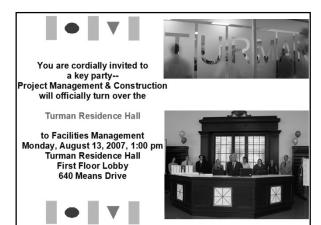
1. Within ten (10) days after receipt of the above mentioned letter the Architect/Engineer, the

^	8 C 0 E F G X 1 J X	EMORY UNIVERSITY - CAMPUS SERVICES - BUILDING ACCEPTANCE - OCCUPANCY APPRO	VIV. 1	CKLIST			0		3			
	Primary Responsibility Support Responsibility	PROJECT NAME PDC PROJECT MANAGER FACILITIES MANAGEMENT ZONE MANAGER										
		COMMISSIONING COORDINATOR										_
	TO MINOCOMPT  OPER THE GOLDEN CHARACTER AT THE CONTROL OF THE CONT	ACTIVITY	NOTICE	DATE	DATE OF	Project	180 DAYE:	180 DAYS	120 DAYS	90 DAYS	DAYS	DAYS
	CP PMC FM CSA SHIO SPO CUST NTCM AE GC						-	-	-	-		
		Construction Tests										
		Roof Assembly test										
2		Window Assembly Water Test										
		Special Equipment (Customer or Building Operations)		-			-	$\overline{}$				
		Review location and required utility connections										
		Review special maintenance requirements										
		Fire alarm inspection by Engineer / Consultant and		-		_	-		-		-	
		System Certification by (sub)contractor (NPFA13.72)										
_		Elevator Inspection by Consultant, PDC Project Manager		_	-		_	_		-	-	_
		and OCIP Safety Coordinator FM-Elevator Coordinator for										
		use by General Contractor										
_		PDC Project Manager, OCIP Safety Coordinator and FM		-	-		-	-	-			
		Elevator Coordinator for Emory Use and Operation										
_		Chiller inspection by FDC Project Managers and FM.		-	-	_	-	-			-	-
		Engineers and Mechanics for construction operation										
_		Chiller inspection by PDC Project Managers and FM	_	-	-	-	-	-	-	_	-	=
		Engineers and Mechanics for Emory use and operation										
_		Endorsement of General Contractor's Insurance	_	-	-	-	-	-	-	-	-	
		Company for beneficial occupancy (if applicable)										
_		Endorsement of Emony Surety for beneficial occupancy.	_	_	-	-	-	-	-	-	-	
		(f.accicable)										
_		Contact Emory Risk Management to start Emory		_	-	-	-	-	-		-	
		Insurance coverage										
-		rispance Coverage		_	-	_	-	-	-	_	-	-
_			_	-	-	-	-	-	-	-	-	-
-		EMORY HEALTH & SAFETY OFFICE	_	-	-	-	-	-	-	-	-	-
-		EHSO Inspection and Certification	_	-	_	-	-	-	-	-	-	_
_		EHSO Inspection and Certification  Fume Hoods	_	-	-	-	-	-	-	-	_	_
-		Fume Proces  Manifestal & Administrative and Abelian Associations of	_	-	-	-	-	-	-	-		_
			- 14									



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- Key Party







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- Key Party
- · Lessons Learned



#### Lessons Learned - Math and Science Center January 9, 2003

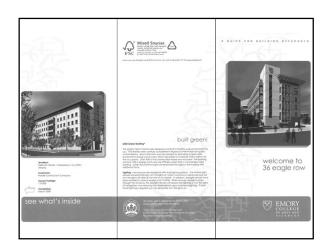
- More user group education needed—at the end of the building process, I knew
  the things I needed to know at the start of the process! Here are the types of user
  education/support that would have been useful during the building process:
  - A. General introduction to the stages of the building process (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.
  - 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&SC) could illustrate:
    - a. General departmental layout

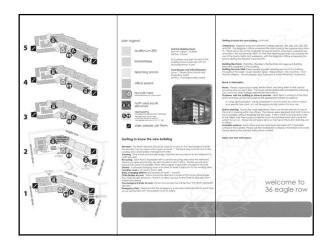


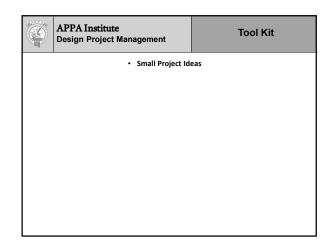
# APPA Institute Design Project Management

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- Key Party
- Lessons Learned
- Move in Brochure







# University of Colorado @Boulder Facilities Planning, Design &Construction Small Projects Ideas

In an effort to improve the overall delivery of small projects to our campus customers, the PD&C division is proposing a partnership with the College of Engineering and Applied Sciences to initiate a pilot program for small projects (under \$500K).

- We (Facman) should re-route small project requests from the Service Desk or web-based system to a "PM assistant". (This refers more to a finetion than a position. Since we are under severe budgetany constraints, we want to find ways to help the project managers be efficient and cost effective.) The PM assistant can make a quick assessment of the scope a expedite the assignment of the project to the appropriate project manager. PDsc Should 5 the work order requests first rather than the service desk trying to guess what the scope m be. (Sometimes work orders are misdirected to the wrong shop due to the poor description work that is submitted, resulting in a delayed start.)
- PD&C will initiate a "one-stop shopping" model for project requests to streamline the
  normal process. The designated projects liaison for Engineering (Skp Wichart) should
  have one individual to deal with when initiating a project. If Skp initiates all
  Engineering projects and has one contact to work with in PD&C, then the initiation of a
  project can be much simpler and quicker.
- 3. Initiate a project monitoring system for projects that measures:

  - Response time,
     Schedule Performance, and
     Quality.



#### APPA Institute Design Project Management

#### **Tool Kit**

- Small Project Ideas
- Warranty Period

"At the completion of a project, we structure our 1 year warranty period to include the Facilities management team having direct contact with the GC's superintendent to address any issues that arise.

This removes having the project manager as a middle person, and the correction of problems occur in a more timely manner."

Tom Clow University of New England



#### APPA Institute Design Project Management

#### **Tool Kit**

- Small Project Ideas
- Warranty Period
- Hurt Feelings Report

			NGS REPORT					
		this form to file			ngs			
		A REQUIRED BY TH		T OF 1974				
AUTHORITY:	S 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 discloser may result in a Wall to Wall Counseling							
		PART I - ADMIN	STRATIVE DA	TA				
A. WHINER'S NAME (Last First MI)		8. Position	C. SOCIAL S	SOCIAL SECURITY NUMBER D.		D. DATE OF	REPORT	
E. ORGANIZATION			F. NAME & TITLE OF THE PERSON FILLING OUT THIS FORM					
		PART II - INCI		_				
A. DATE FEELINGS WE	REHURT	B. TIME OF HURT	FULNESS	C. LOCATION OF HURTFUL INCIDENT		IDENT		
D. WITNESSES OF HU	E. NAME OF REAL MAN/WOMAN WHO HURT YOUR SENSITIVE FEELINGS							
F. POSITION	G. ORGANIZATION (if different from feabove)							
		E. INJURY (Mar		4				
1. WHICH EAR WE								
1. WHICH EAR WE	EN INTO!	YES NO MAYBE						
3. DID YOU REQUIRE	4. HAS THIS RESULTED IN A TRAUMATIC BRAIN INJURY?							
		YES		MAY		AN INDUNTE		
- 89	F, REASO	N FOR FILING THIS	REPORT (Mai	k all that app		-		
I am thin skinne		My Boss needs				Two beers i	s not enough	
I am a wimp		My feelings are easily hurt			Г	My hands s pockets	hould be in my	
I have woman/ man-like hormo	nes	I didn't sign up for this				I was not or brief	ffered a post	
I am a crybaby		I was told I am			Г	Someone re	equested a	
I want my momn		The weather is too cold					have and more	

# APPA Instit Design Proje

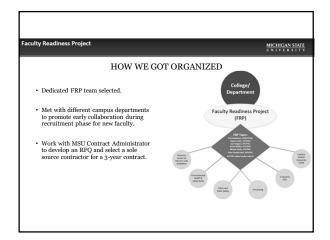
# APPA Institute Design Project Management

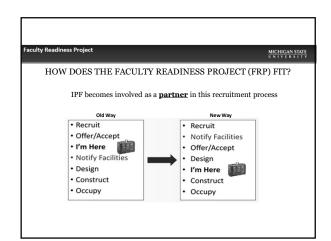
#### Tool Kit

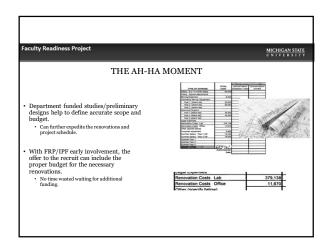
- Small Project Ideas
- Warranty Period
- Hurt Feelings Report
- MSU Faculty Readiness Program

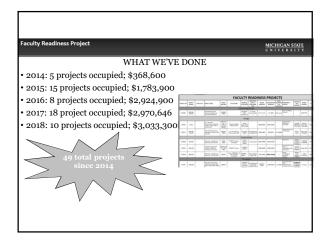


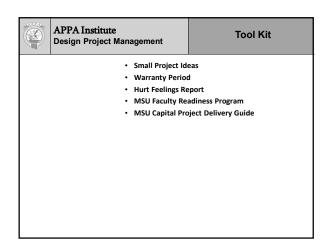
# ALIGNING EFFORTS AT MICHIGAN STATE In response to Bolder by Design imperatives of introducing research opportunities and advancing our culture of high performance: Improve time frame of project completion for incoming faculty. Align project expectations with appropriate delivery method.







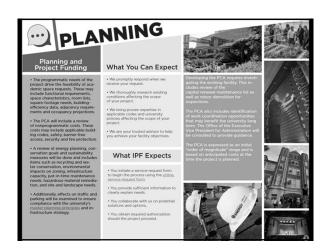


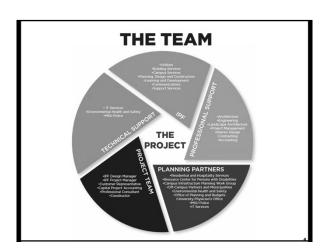


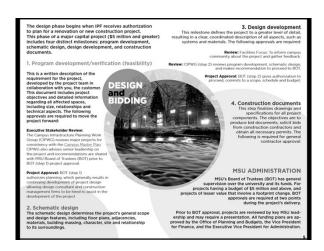


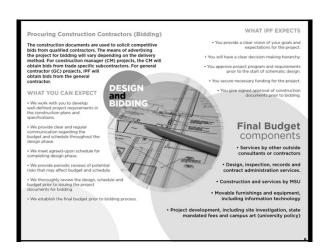




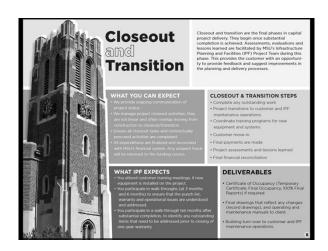




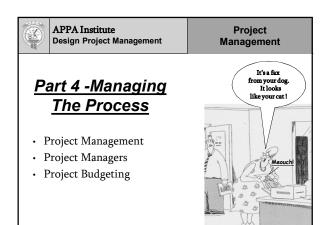


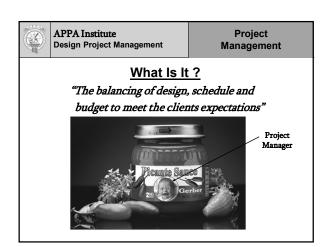


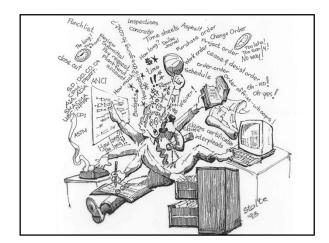


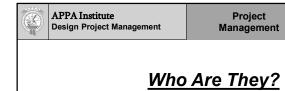


The Project Planning Partners List is a resource for communicating with various individuals on and off campus involved in a capital project.  It is a resource for communicating with various individuals on and off campus involved in a capital project.  It is a resource for communicating with various individuals on and off campus involved in a capital project.  It is series  This department reviews projects involving teleprone in complaints of the complaints o	ety, view, view, es and a ability		
What tools can you share?			

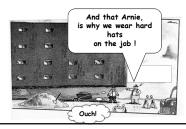








- · Design Team
- · Owner
- $\cdot$  Contractor



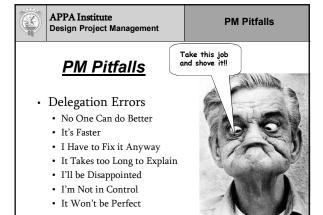


Traits of the Owner's PM

## 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







**PM Pitfalls** 

## **PM Pitfalls**

- · Delegation Errors
- · Micro vs. Macro
- Analysis vs. Synthesis
- SOP vs. Flexibility
- · PM vs. PM
- Image vs. Substance



APPA Institute Design Project Management

**PM Tips** 

### PM Tips

From the mouth of babe's...



- 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:

  1 (Eazr. 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 vilid do and do what I say. If I promise something to the Client, I try hard to follow up on my promise.

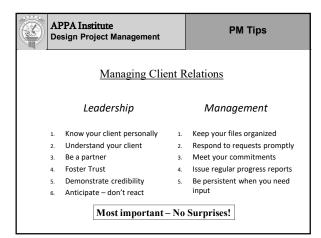
  Lead by example—When challenged by the Client to have a Change Order free Tover portion of the project, I asked the consultant to meet me in the space with his 100% documents. We discovered that there was a lot lacking in his drawings. Taking 100% drawings out to the field and reviewing them in the space to be removated was something that I used to do when I was working as an architect on Campus.

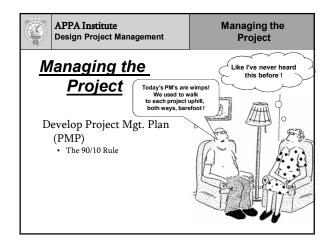
  Poslitive Attitude—Atthough the Client can be challenging. I have enjoyed working with him and I try to be positive about my work on this project.

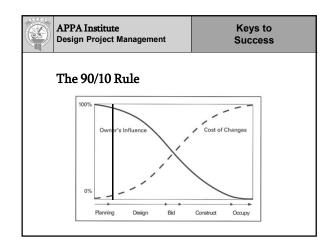
  7 Ell It like It is—I am not afraid to give my opinion to the Client. When I think he is making an error, I cell him. He decided to heave some of the VAT flooring after than abate it and I told him thought that was a mistake. We are going to have to have some tough discussions in the Tower portion of the project. From a building envelope view point, this space is a 60's mess. We shouldn't space.

  Although this croicet is far from over, hopefully we are off on the right foot with the Client. I hope

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.









Keys to Success

- $\bullet \quad PMP \; (\text{Understand Project and Desired Outcomes}) \\$ 
  - Vision/Goals/Objectives / Critical Factors for Success
  - Communication Plan
  - Scope Schedule

  - Financial Plan

  - Quality Control Process
     Change Management Process
  - Involve Key Stakeholders
  - Identify Constraints
- · Assemble Team / Empower the Team
- · Resolve Conflicts
- · Encourage Risk Taking

