AABC Commissioning Group AIA Provider Number 50111116

The Architect's Role in the Commissioning Process

AIA Course Number CXENERGY1531

Michael Chelednik, AIA, Sr. Airport Terminal Architect AECOM

Daniel J. Acri, TBE, CxA, President, Associated Air Balance Council (AABC) EDUCATION CATION

April 29, 2015

Credit(s) earned on completion of this course will be reported to AIA 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.

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



Learning Objectives

At the end of this course, participants will be able to:

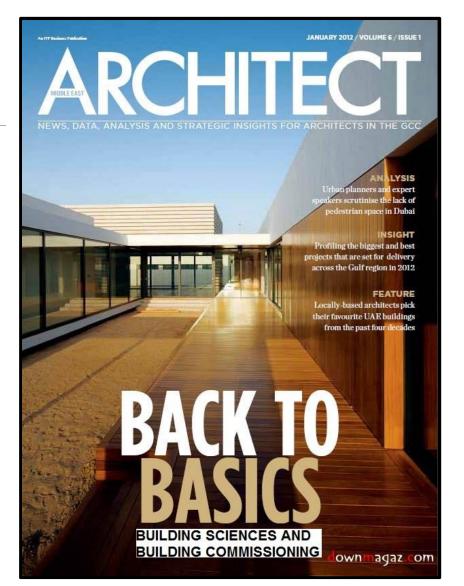
1. Understand the role of architects in the team of professionals involved in the commissioning of buildings.

- 2. Learn how architects, commissioning providers and test and balance agencies can effectively collaborate to ensure the construction of buildings meet or exceed the building owner expectations for high-performing buildings.
- 3. Understand why architects need to have greater involvement in the commissioning process to meet construction objectives.
- 4. Learn how building owners benefit by having architects serve as their representative and voice in the team of professionals involved in building and systems commissioning.



Course Description

The architect should be a key member of the commissioning team. Establishing stronger relationships between the architect, commissioning provider, and test and balance agency has the potential to ensure that highquality, comprehensive services are provided. This session will discuss ways to engage the architect more fully in the commissioning process and make better use of their direct line of communication to the building owner.





AIA Knowledge Community

The goal of the TDBP is to promote architects as leaders in the application of building performance; in the use of highperformance design criteria, codes, and standards; and in programming, designing and managing building performance. To advance, disseminate, and advocate – to the architecture profession, AIA members, building owners, the construction industry, the academy, and the public – design practices that create buildings that are healthy, energy efficient, and durable.



AIA Cx Working Group Outline to AIA Board



- 1. AIA needs to accept that building commissioning is here to stay and that commissioning is not just about HVAC
- 2. The AIA is promoting and helping to shape the future direction of Cx
- 3. The AIA should educate our membership in understanding what commissioning is, where it currently stands in the built environment and commissioning as a supplemental service
- 4. AIA members are leaders in the BECx Process
- 5. The AIA is involved in developing the qualifications (certifications) of those taking leadership roles in Cx
- 6. AIA is engaged with other organizations in developing Cx processes, services and qualifications

Keeping the building commissioning and test and balance providers involved in the design process from its earliest phases will cut down on the risk of construction or

commissioning mistakes that can add cost to the project and cause underperformance

Draft AIA Position on Cx The Architect and Building Commissioning

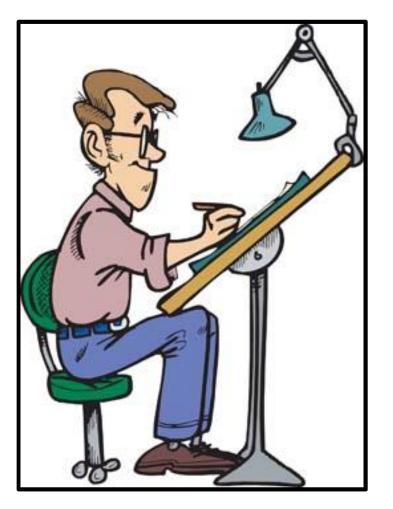




No matter how effective the design solutions, if they are not implemented correctly the project will risk missing its performance goals.

Draft AIA Position on Cx







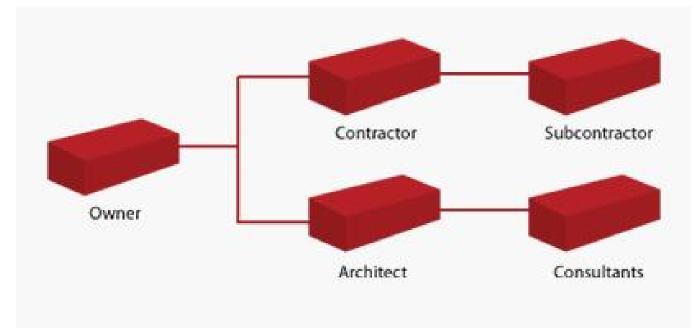
The Architect and Building Commissioning







What should the relationship be between Owner and Architect?

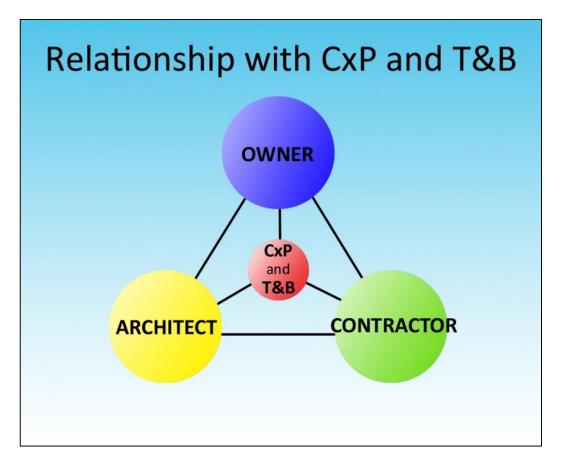




Architects have a responsibility to act as stewards of the built environment

Draft AIA Position on Cx The Architect and Building Commissioning

What should the relationship be between the Architect, CxP and test and balance agency?



Education and Training of Architects

32 NAAB Curriculum Requirements

6 areas related to Building Science and the Technical Rigors of Professional Practice

- A. 1. Communication
- A. 2. Design Thinking
- A. 3. Visual Communication

• A. 4. Technical Documentation

- A. 5. Investigative
- A. 6. Fundamental Design
- A. 7. Use of Precedents
- A. 8. Ordering Systems.
- A. 9. Historical Traditions and Global Culture
- A. 10. Cultural Diversity
- A. 11. Applied Research
- B. 1. Pre-Design
- B. 2. Accessibility
- B. 3. Sustainability
- B. 4. Site Design
- B. 5. Life Safety
- B. 6. Comprehensive Design
- B. 7. Financial Considerations

- B. 8. Environmental Systems
- B. 9. Structural Systems
- B. 10. Building Envelope Systems
- B. 11. Building Service Systems
- B. 12. Building Materials and Assemblies
- C. 1. Collaboration
- C. 2. Human Behavior
- C. 3. Client Role in Architecture
- C. 4. Project Management
- C. 5. Practice Management
- C. 6. Leadership
- C. 7. Legal Responsibilities
- C. 8. Ethics and Professional Judgment
- C.9. Community and Social Responsibility

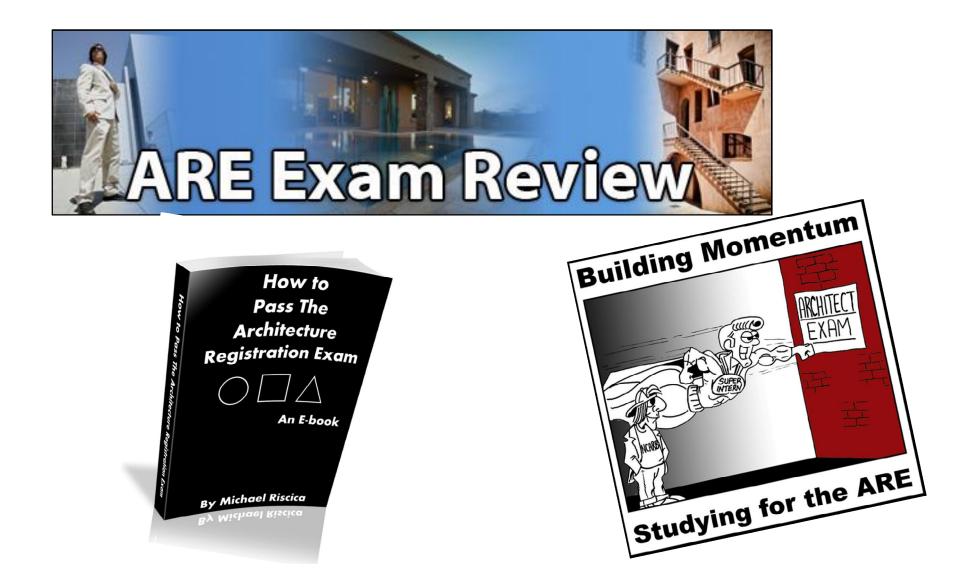
Education and Training of Architects

NCARB									
		FRN DFV	v/FI	OPMEN	ΤΡ	ROGRAN	Λ (-		١F
	INT	FERN DEV	VEL	_OPMEN ⁻	ΓΡ	ROGRAN	10		
	INT	FERN DEV	VEL	_OPMEN ⁻	ΤP	ROGRAN	∕ (-	GUIDELIN	
	INT	FERN DEV	√El	_OPMEN ⁻	ΤP	ROGRAN	∕ .		
Introduction	2	FERN DEV	√EL _6	OPMEN ⁻	ΤP ,	ROGRAN Tasks	<u>∧</u> (- 21		²⁰
								JULY	20
What is IDP?	2	IDP Steps	6	IDP Requirements	9	Tasks	21	JULY	20
What is IDP? What is NCARB? NCARB Services	2 2 3	IDP Steps Establish NCARB Record Identify IDP Supervisor Identify Mentor	6 6 6	IDP Requirements Eligibility Reqs Reporting Reqs Employment Reqs	<mark>9</mark> 9 9	<mark>Tasks</mark> Tasks Index Pre-Design Design	21 21 22 24	JULY IDP Supervisors Resources	20
What is IDP? What is NCARB? NCARB Services NCARB Record	2 2 3 3	IDP Steps Establish NCARB Record Identify IDP Supervisor Identify Mentor Document Experience	6 6 6 7	IDP Requirements Eligibility Reqs Reporting Reqs Employment Reqs Experience Settings	9 9 9 10	<mark>Tasks</mark> Tasks Index Pre-Design Design Project Management	21 22 24 28	JULY IDP Supervisors Resources	20
What is IDP? What is NCARB? NCARB Services NCARB Record Licensure	2 2 3 3 4	IDP Steps Establish NCARB Record Identify IDP Supervisor Identify Mentor Document Experience Document Education	6 6 7 8	IDP Requirements Eligibility Reqs Reporting Reqs Employment Reqs Experience Settings Supervision Reqs	9 9 9 10 11	<mark>Tasks</mark> Tasks Index Pre-Design Design	21 21 22 24	JULY IDP Supervisors Resources	20
What is IDP? What is NCARB? NCARB Services NCARB Record Licensure	2 2 3 3	IDP Steps Establish NCARB Record Identify IDP Supervisor Identify Mentor Document Experience Document Education Transmit Your Record	6 6 7 8 8	IDP Requirements Eligibility Reqs Reporting Reqs Employment Reqs Experience Settings Supervision Reqs Categories and Areas	9 9 9 10 11 12	<mark>Tasks</mark> Tasks Index Pre-Design Design Project Management	21 22 24 28	JULY IDP Supervisors Resources	
Introduction What is IDP? What is NCARB? NCARB Services NCARB Record Licensure NCARB Certification	2 2 3 3 4	IDP Steps Establish NCARB Record Identify IDP Supervisor Identify Mentor Document Experience Document Education	6 6 7 8	IDP Requirements Eligibility Reqs Reporting Reqs Employment Reqs Experience Settings Supervision Reqs	9 9 9 10 11	<mark>Tasks</mark> Tasks Index Pre-Design Design Project Management	21 22 24 28	JULY IDP Supervisors Resources	²⁰

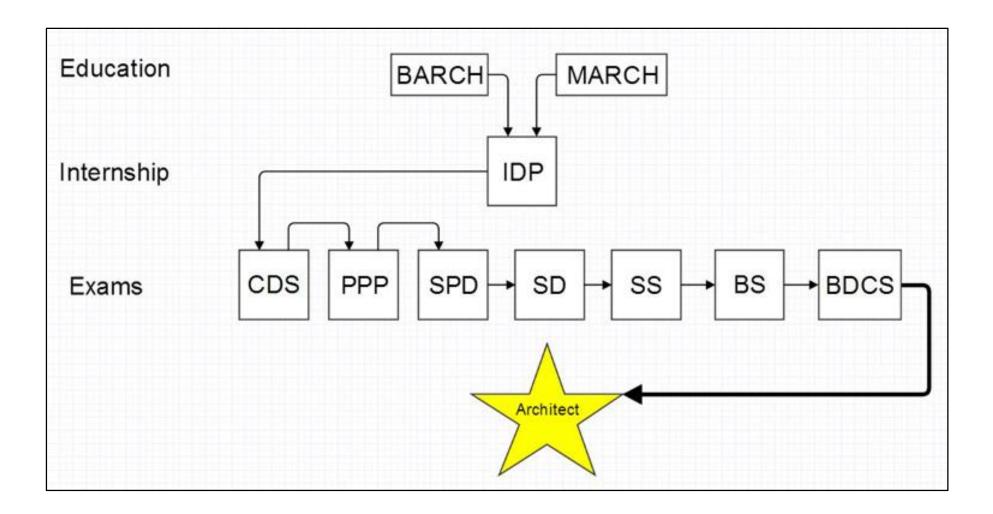
© 2014 National Council of Architectural Registration Boards (NCARB)

This document, effective July 2014, supersedes all previous editions of the IDP Guidelines. Please check NCARB's website, www.ncarb.org, regularly for updates to this publication and for the most current information regarding the Intern Development Program (IDP) and the experience requirement for NCARB certification.

The Architect Registration Exam



Architectos Education, Experience and Exam



This concludes The American Institute of Architects Continuing Education Systems Course

Michael Chelednik, AIA

718-533-4258 direct 347-886-2194 mobile michael.chelednik@aecom.com



Daniel J. Acri, TBE, CxA, President, Associated Air Balance Council (AABC)

