COGENCEAlliance Owners+Architects+Engineers+Contractors



Cogence (Latin)

"To drive together" or "Thinking that is well organized"

The purpose of the Alliance is to bring Owners and Developers, Architects and Engineers, Construction Managers and Contractors, and Allied Industry Professionals together to advocate and be a resource for improved project delivery.

For more information visit us at <u>www.cogence.org</u>

Cogence Partner Core Values

Cogence Alliance Partners engage with the Industry to make the work better together for the future.



Each partner is committed to:

- Understanding diverse backgrounds, experiences, and beliefs
- Exchanging ideas through conversation and debate
- Being responsible for positive outcomes over time, with a lifelong passion to learn, grow, and stay curious – while having fun!

SW Ohio Chapter Partners















Today's Roundtable: Liability, Risk Management and Contracts

Session Key Themes: Liability, Risk Management and Contracts Challenges in Using Indemnification **Common Risk Drivers** Value of Quantitative **Risk Analysis** Provisions AI

Panelist Introductions

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Common Risk Drivers



Indemnification Provisions Christopher S. (Kit) Houston Partner, Taft Law

Associate Client Executive, Oswald Companies



Mike Murphy, AIA LEED AP Principal, Champlin Architecture

Challenges in Using Al



Value of Quantitative Risk Analysis Gerald P. (Jerry) Klanac

Faculty of Practice, Director of Construction Engineering & Management Program, University of Dayton + Consultant Emeritus, PMA Consultants LLC

Timothy J. (Tim) Shumrick, CPCU, CRIS, AU, AIC-M, ARE, ARM, PTC, AINS, DTM

Fundamental Concepts of Project Risks

Risks can be bad ... or good!

Two dimensions of a risk



Threat (or Risk) – risk with negative effect to project



Probability that risk will occur



Opportunity – risk with positive effect to project



Impact of risk, when it occurs

Options to Deal With Risks



Survey Session: Risk Drivers



Let's Go to MentiMeter!

What do you consider the biggest risk drivers for the AEC industry?

- Tariffs
- Cost control.
- Quality
- Poor communication
- Schedule
- Quality of installs
- Complacency
- Unforeseen conditions
- Resources and schedule

- Communication between team members
- Resources
- Material availability
- Cost
- Lead times, cost / schedule
- Skilled labor availability
- Staffing
- Existing conditions
- Documentation

What strategies do you use to manage risks and any resulting claims?

- Identify and address early
- Risk matrix
- Documentation/ communication/ evaluation
- Proper planning
- Documentation.
- Documentation!
- Early identification, evaluations, and communication to effectively develop a plan for managing.
- Communicate to Client and Owner about issues as you become aware of them.
 Bad news does not get better over time.

- Document risks and risk mitigation plans
- Identify potential subject matter experts and involve
- Have a structured and disciplined approach (for example subcontract prequalification)
- Daily reporting shared with needed parties
- Using the right communication tool at the right time
- Understand notice requirements

What do you see as the role of insurance in managing risks?

- Protection
- Protect from catastrophic Transfer
- Mandatory preventative maintenance
- Provide a safety net firm
- Backstop
- Moving risk Protection Peace of mind
- Required
- Last defense
- Cheap insurance

Main Topics: Risk Drivers+







Major Risk Drivers for AEC Industry Common Response Strategies for Risks & Potential Claims Role of Insurance



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High-Level Risk Drivers

classifications of causes leading to a loss prevention file or a claim being made

1) TECHNICAL
 2) NON-TECHNICAL



Technical vs. Non-Technical

NON-TECHNICAL



Breakdown in project or practice management processes

CONTRIBUTES TO

TECHNICAL

Error and/ or omission of a technical nature

RESULTS IN

Loss Prevention File or Claim

OSWALD[®] A UNISON RISK ADVISORS company



Top non-technical Risk Drivers **Proprietary Research**





Risk Mitigation Fundamentals

	Risk Response				
Avoid	Transfer	Accept	Control		
 Project Client Develop lower risk approach Eliminate cause Transfer 	 Insurance Contract Performance incentives Warranties Sub-contracting Client 	 Document and accept consequences <u>or</u> Develop contingency plan Contingency budget/ schedule 	 Mitigation Simplify your process Delete the task Add more experienced staff Add time/budget Increase monitoring 		

Risk Mitigation Strategies

What can you control?

Risk Mitigation

- Training
- Client selection
- Contract T&Cs
- Clear/appropriate SOW
- Project team
- Project execution
- Communications
- Documentation
- Quality management

Processes & Procedures

- Go-No/Go checklists
- Project Management Plan
- Kick-off meeting
- Workplans/checklists
- QMS
- Additional Services/Change Order process
- Project close-out procedures



The Role of Insurance

Transfer	Risk Mgmt	Mitigation	Dispute Resolution / Settlement
 Insurance Carrier Balance Sheet Protection Damages Defense Costs 	 Education Risk Identification Risk Prioritization Exposure Control Staff Training 	 Claim Recognition Carrier Assistance (ASAP) Mitigation Project Stability 	 Claim Settlement Mediation/Arbitr ation/Litigation Live to Fight Another Day



Indemnification – What Is It?

Black's Law Dictionary :

- (1) The action of compensating for loss or damage sustained;
- (2) The compensation so made.

In the context of construction, indemnification arises when the type of third-party claim described in an indemnification provision occurs. The party (typically an architect or contractor) providing indemnification is responsible for compensating the owner against the third-party claim consistent with the language of the provision.



Indemnification: AIA Owner-Contractor Contract

AIA Document 201-2017 General Conditions of the Contract for Construction

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

Indemnification: Modified AIA Owner-Contractor Contract

Modified AIA Document 201- 2017 General Conditions of the Contract for Construction

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify, defend, and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from (1) breach of the Contract, or (2) performance of the Work, in addition to any third party claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

Ohio Law and Interpreting Indemnification Provisions

The Supreme Court of Ohio described indemnity as "merely a tool for allocating costs between contracting parties."

• Travelers Indemnity Co. v. Trowbridge, 41 Ohio St.2d 11 (Ohio 1975).

Ohio courts have not limited indemnification provision to third party claims.

 See Battelle Memorial Institute v. Nowsco Pipeline Services, Inc., 56 F.Supp.2d 944 (S.D. Ohio 1999) (analyzing Ohio cases considering indemnification provisions)



Indemnification: AIA Owner-Architect Contract

AIA Document B133 – 2019 Standard Form of Agreement Between Owner and Architect

§ 8.1.3 The Architect shall indemnify and hold the Owner and the Owner's officers and employees harmless from and against damages, losses and judgments arising from claims by third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, but only to the extent they are caused by the negligent acts or omissions of the Architect, its employees and its consultants in the performance of professional services under this Agreement. The Architect's obligation to indemnify and hold the Owner and the Owner's officers and employees harmless does not include a duty to defend. The Architect's duty to indemnify the Owner under this Section 8.1.3 shall be limited to the available proceeds of the insurance coverage required by this Agreement.

circumstances. The Architect shall perform its services as expeditiously as is consistent with

such professional skill and care and the orderly progress of the Project.

AIA B101 – 2017 Standard Form of Agreement





Standard of Care: AIA Owner-Architect Contract

Survey Session: Challenges in Use of Al



Let's Go to MentiMeter!

MentiMeter Survey Question #1

Join at menti.com | use code 4701 3766





MentiMeter Survey Question #2

Join at menti.com | use code 4701 3766

How would you establish what "standard of care" would be for design professional services?

5 responses

Interview another engineer or architect who performs work in a similar geographic area

Best practices, meet code, meet program

Reliability

Industry Standard

Ask our general counsel



MentiMeter Survey Question #3

Join at menti.com | use code 4701 3766

8 responses

It's the wild Wild West. There are no standards yet.	Too open ended	
Emerging tech	Reliability	
Understanding the true basis	Trust needs verification	
Not applicable. Currently.	Trust	





- Al is just a tool...not a replacement for professional judgement.
- No precedent for enforcing limitations on use of a tool that may support an Architect's ability to improve the public's health, safety, and welfare. (NCARB)
- When is the use of AI so prevalent that its use modifies expectations about what is "consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances"?
- Does your company have an AI usage policy?
 - What are the guardrails?
 - Provide clear but flexible expectations.
 - Communicate this to ALL employees regardless of experience level.



- What are you using AI for?
 - Image enhancement (Chaos Al Image Enhancer)
 - Conceptual Image Generation (Stable Diffusion/ControlNet)
 - BIM Model Management (Revi MCP using Claude)
 - General Data Management, Contract Review, Email Writing (ChatGPT)
 - Building Code Research (UpCodes Al System)
- Do you "own" the input you use? What does the project contract say about ownership? Is there a confidentiality agreement in place with the client?



- Do you give up ownership of anything you upload as an input?
- Do you allow the AI to use your input (your proprietary info) to train the AI?
- What is the data set the AI is trained with?
 - Is there an inherent bias?
 - Was the training data set sourced legally?
 - Certain AI platforms excel at specific tasks because of their curated training data set.



- Cloud Based vs. Local
 - Stable Diffusion runs locally in a closed system with no connection to an external server.
 - ChatGPT is hosted on a cloud-based server to access the needed RAM.
- Do you "own" the output you get?
- Trust but verify
- If, how and when do you disclose your use of AI to the client? Do they have an option to opt out of AI use?
- How much modification of AI generated content is required before it can be copyrighted because it is then created by a human?



"The AI models are effectively not capable, for the most part, of creating something truly new and substantially different."

Erik Rõuk, intellectual property attorney

https://www.dezeen.com/2023/08/21/ai-copyrightdesigners-architects-aitopia/

Project Risk Management



Key Concepts of This Approach:

- 1. Planning "up front" is crucial to make the process work.
- 2. Risk Register is the "hub" where information about all project risks is captured and updated.
- 3. Assessments are first done in a qualitative manner to help prioritize risks and then in a quantitative manner to measure them in terms of effects to project results (usually cost and schedule outcomes).
- 4. Risk treatments are studied for the crucial risks and responses applied when necessary.

Cost & Schedule Risk Analysis

Commonly Used 6-Step Process for Analysis



Quantitative Risk Analysis: Outputs

Cumulative Probability Distribution Profile



Tornado Diagram



Quantitative Risk Analysis & Contingency



If you wanted to establish a budget that had 90% probability of not being exceeded, one can use this output to establish the related contingency:

Estimate: \$900,000 P90 Value: \$1,056,672

Contingency_{P90} = \$1,056,672 -\$900,000 = \$156,672, which is 17.4% of estimate value

Survey Session: Plus/Delta



Let's Go to MentiMeter!

Plus: What did you like about today's roundtable?

- Knowledgeable panelists
- Depth of topic
- Great panel
- Real world examples
- Diverse conversation on risk.
- Great insights from panel
- Very informative
- I really like the discussion on AI and how that can impact the design process
- Indemnity conversation in simple terms

- Panel members were great
- The panel's expertise
- Different insights
- Knowledge of panel
- Identification basic idea gathered.
 Variable contingency tornado model. Internal email hazards
- Great education and awareness for risk, contract, indemnity
- This format was beneficial

Delta: What improvements should we consider for next roundtable?

- Still like the breakouts.
- Breakout sessions create more interactions
- Case study would be interesting. Of a bad contract agreement.
- · Have slides sent out prior to the meeting