Maximum Outcome, Minimal Risk with BIM

Best Practices and Lessons Learned
Project Delivery Methods
Design-Bid-Build (GC or CM at Risk)
Project Delivery Methods

Design-Build
Project Delivery Methods
Integrated Form of Agreement (IPD)
Project Delivery Approach

“Integrated Project Delivery (IPD) is a project delivery approach that integrates people, systems, business structures, and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication and construction”

- AIA California Council
Lessons You Can Apply Right Now

**Top “Do’s”**
1. Understand owner’s goals
2. Select participants carefully
3. Carefully formulate / synchronize contract provisions (BxP & General Notes, SET X,Y,Z ORIGIN – LOGICALLY)
4. Communicate effectively
5. Focus on the project

**Top “Don’ts”**
1. Overpromise
2. Act outside your role
3. Get ahead of yourself – you’re on a team
4. Omit key parties from the team
5. Rely on a model beyond its purpose, e.g. ascribe LOD to an ENTIRE MODEL

Get our expanded list of Top 20 Do’s and Don’ts!
Design Teams: Examine Your Self

“The unexamined construction documents are not worth constructing.”

Ikerd’s BIM Corollary for CD’s

ὀ. ἀνεξέταστος βίος οὔ βιωτὸς ἀνθρώπῳ

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Construction Teams: “Trust But Verify.”
Ronald Reagan

“Ikerd’s BIM Corollary for Contractors Receiving Designer Models

“Gipper BIM !!”
TRAIN, TRAIN, TRAIN

- In person
- In depth for Managers
- 4 Day Curriculum
- Half Day Exam
- AGC.org/learn/education-training/building-information-modeling/cm-bim

- In person
- In depth for Managers
- 1 Day Curriculum In person class room
- BIMforum.org/lod/

- Introduction for Modelers, Staff, and Technicians
- MEP, Structure, Enclosures
- Online, 4 hours
- 1 hour exam
- cd-bim.com/workshops/
LOD SPECIFICATION TASKFORCE

- No LOD of whole Model, only Elements
- All delivery methods
- Dictionary for BIM

**BIMforum.org/LOD**
BxP SAMPLE TASKFORCE

1. Builds off CD-BIM sample BxP
2. 140+ projects with over 12 GCs
3. Developed by practitioners.
4. BIMforum.org/BxP
Coordination Guide Taskforce

1. Builds off CD-BIM sample BxP
2. 140+ projects with over 12 GCs
3. Developed by practitioners.
4. BIMforum.org/COORD

David Epps
Mark Mergenschroer
David Merrifield
John Russo

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Recourse in Construction
Foundations and Sources of Funding

Financial Guarantee
- Surety
- Parental Guarantee
- LOC

Liability Insurance
- Professional Liability
- Auto Liability
- Pollution Liability
- Aviation/Watercraft

First Party Insurance
- Builders Risk
- Delay in Start-Up
- Permanent Property
- Subcontractor Default
- OPPI/CPPI

Gaps/Unfunded Exposures
- Disputed contractual provisions
- Insurance exclusions
- Claim breaches insurance (sub)limits
- Breach of policy conditions
- Excusable delay/Force Majeure
- Loss of market/business risk
- Statutory provisions

Foundation
- Contract
- Warranty
- Tort

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Insurance Issues

How does collaboration affect the role of insurers and application of policies to pay losses, reduce uncertainty, and provide risk management and claims services addressing:

- **Third-Party Claims** – bodily injury, property damage or financial loss, including injury to construction workers
- **Project Outcome Risk** – cost, schedule
- **Project Performance Risk** – design or construction defects in completed work
## Comparison of Key Insurance Policy Provisions

<table>
<thead>
<tr>
<th>Insurance Policy</th>
<th>Professional Liability</th>
<th>General Liability</th>
<th>Builders Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td>Damages due to a Wrongful Act</td>
<td>Bodily Injury or Property Damage due to negligence</td>
<td>Direct physical damage to covered property</td>
</tr>
<tr>
<td><strong>Standard of Care</strong></td>
<td>Reasonably prudent professional firm (e.g. design)</td>
<td>Reasonably prudent contractor (i.e. means &amp; methods)</td>
<td>Reasonable precautions to protect property (policy excludes intended or “expected” loss)</td>
</tr>
<tr>
<td><strong>Conditions</strong></td>
<td>Report claims/conditions; Don’t compromise insurer’s defense</td>
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<td>Protect property from subsequent damage; Timely completion of Notice of Loss</td>
</tr>
<tr>
<td><strong>Defense</strong></td>
<td>Erodes the policy limit</td>
<td>In addition to the policy limit</td>
<td>n/a (first party coverage)</td>
</tr>
</tbody>
</table>
Insurance Policy Conditions

- Promptly notify insurer in writing of claim or any situation likely to give rise to a claim
- Cooperate with insurer’s defense of claim
- Refuse, except solely at your own cost, to voluntarily make any payment, admit liability, assume any obligation, or incur any expense without our prior written approval
- Protect insurer’s right of subrogation (recovery)
- Pay the self-insured retention / deductible amount when due
Practical Advice

• Know your business partners (Owner, Designer, Constructor, Trades)
• Maintain traditional project roles through collaborative process
• Don’t assume liability / guarantee performance beyond norms
• Assess your exposure to professional liability
• Determine necessary amounts / types of insurance coverage
• Review policies carefully, including limits, conditions, endorsements
• Meet with insurer underwriting and claims departments to assure understanding and buy-in
THANK YOU

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