VDC@Gilbane
Strategies for Collaborative Delivery
Learning Objectives

- What are the components of a design-assist workflow that NEGATE design-assist success?
- What recalibrations must occur on behalf of the CM team as they relate to individual skillsets and responsibilities on design-assist projects?
- How can we assist the design teams to more functionally work within the constraints of cost, schedule and sequencing while preserving design intent?
→ Technology
→ Collaboration
→ Owner’s Expectation

Solving issues creatively
AEC Collaborative Environment
Initiative Communication Honesty Accuracy Timeliness
- Technology
- Collaboration
- Owner’s Expectation

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Solving issues creatively  
AEC Collaborative Environment

Initiative  Communication  Honesty  Accuracy  Timeliness

Future Goal  
100% Scope Capture  
100% Set = Shops

Exterior Skin TC  
Structural Steel TC  
Electrical TC  

Architect  
Structural Engineer  
Waterproofing Consultant  

Fire Protection TC  
Plumbing TC  
Electrical Engineer  

Mechanical Engineer  
Mechanical TC  
Plumbing Engineer
Why the Process Might Not Work

IPD or Bust?
Skin in the Game?
Pooled Risk?

If NO
Lack of Decisions
Lack of Closure
Why the Process Might Not Work

IPD or Bust?
Skin in the Game?  If NO  Lack of Decisions
Pooled Risk?  Lack of Closure
Issue Closure

Knee Wall Coordination
### Define Expectations

- Who models the issue?
- Who makes the final decision?
- Who is responsible for closure?
- What is the deliverable?

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**85% Completion Problem**

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Atrium or CS</th>
<th>Involved</th>
<th>Complete</th>
<th>Assigned To</th>
<th>Start Date</th>
<th>Last Reviewed</th>
<th>Duration</th>
<th>Imp</th>
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</thead>
<tbody>
<tr>
<td>Overall Design / Architecture Issue</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Gordon Grisanger</td>
<td>08/05/13</td>
<td>11/04/13</td>
<td>66</td>
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<tr>
<td>Mechanical (Sheet Metal)</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Andi</td>
<td>08/05/13</td>
<td>09/05/13</td>
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<tr>
<td>Fin tube system to wash glass on vestibules. Is this established and decided? Does additional confirmation need to occur? The sizing needs to be given in fast.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Gordon Grisanger</td>
<td>08/05/13</td>
<td>11/04/13</td>
<td>66</td>
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<tr>
<td>Size (length) of fin tube to wash glass at vestibules and at top of Atrium.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Andrew Clark</td>
<td>08/13/13</td>
<td>09/13/13</td>
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<tr>
<td>Steel model of attenuators needed for AHU-3 or volutrol units.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
<td>11/04/13</td>
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<tr>
<td>Provide Location and Access to and from Main Supply and Return Risers for Atrium.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Andy</td>
<td>11/04/13</td>
<td>11/04/13</td>
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<tr>
<td>Required answer Atrium SKM22 showing smaller duct sizes and/or CFMs. Now called SKN 26.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
<td>11/04/13</td>
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<tr>
<td>Needed equipment schedules from the engineers.</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
<td>11/04/13</td>
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<tr>
<td>VAHs boxes</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
<td>11/04/13</td>
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<tr>
<td>Heat Exchanger schedule</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
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<td>Reloading Return Fans</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
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<tr>
<td>New FCUs for Bridges</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
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<tr>
<td>Elements that Require Coordination with Other Trades</td>
<td>Atrium</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>11/04/13</td>
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<tr>
<td>M1 Electric Rooms per Elevator Reel Duct</td>
<td>Core/Shell</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>10/04/13</td>
<td>10/04/13</td>
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<tr>
<td>Are VAVs or Exhaust Duct being used? Sketch supplied by Andrew Clark</td>
<td>Core/Shell</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>10/04/13</td>
<td>10/04/13</td>
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<tr>
<td>Final Bathroom Locations All Trades</td>
<td>Core/Shell</td>
<td>✔️</td>
<td>✔️</td>
<td>Bob Atkins</td>
<td>10/04/13</td>
<td>10/04/13</td>
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</tbody>
</table>
Skillset Recalibration _ VDC / NON-VDC
_ Design-Assist Facilitator
BIM Coordination between Core/Shell and TI Systems

Systems Clashed:
- PFP.PL v Core and Shell All Trades
- Mech_Duct v Core and Shell All Trades
- Mech_MP v Core and Shell All Trades

Blue spheres signify collisions.
Skillset Recalibration _ VDC / NON-VDC
_ Design-Assist Facilitator
Takeaways

- Skin in the game - IPD?
- Decision Makers
- Closure

- Non-VDC and VDC staff to up their skills

- Assist design teams through the application of cost, scheduling, sequencing and upstream/downstream constraints