

Collaborative Construction Planning

*A Convergence of Sustainability, Lean Construction
And Safety in Design*

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Kent Grove
Executive V.P. of Operations
Temp-Control Mechanical Corp

The Definition of Collaboration

From Wikipedia, the free encyclopedia

Collaboration is a recursive process where two or more people or organizations work together toward an intersection of common goals — for example, an intellectual endeavor that is creative in nature—by sharing knowledge, learning and building consensus. Collaboration does not require leadership and can sometimes bring better results through decentralization and egalitarianism. In particular, teams that work collaboratively can obtain greater resources, recognition and reward when facing competition for finite resources.

What is Collaborative Construction?



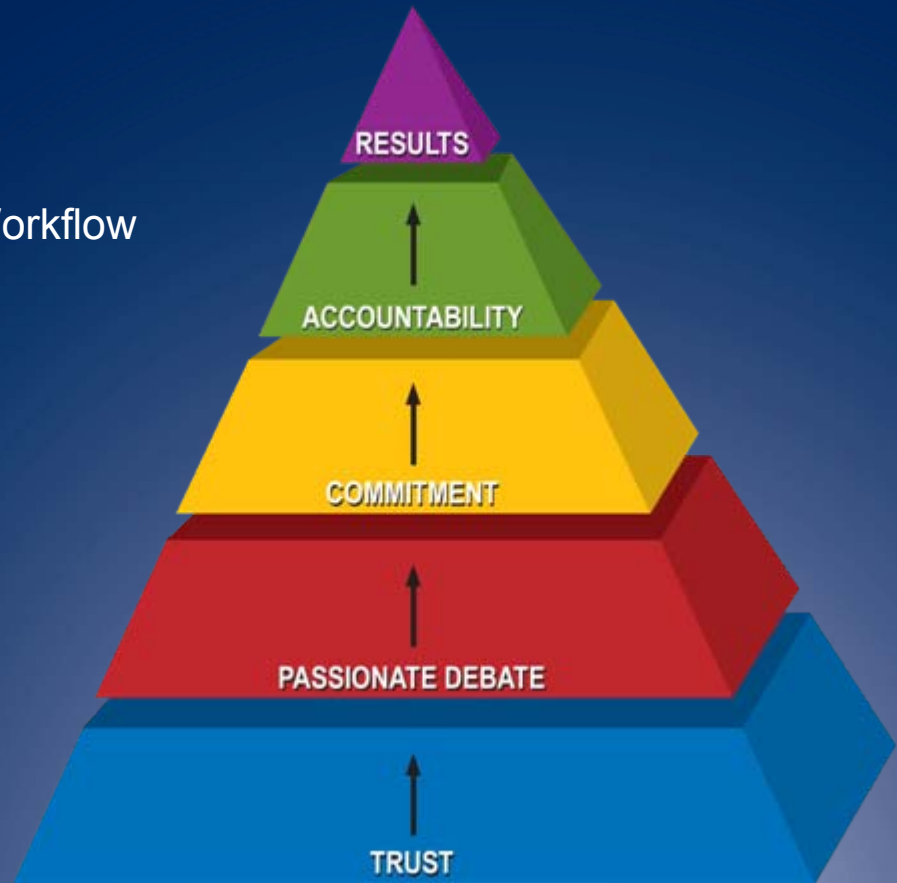
What is Collaborative Construction?

What it is....

- BIM – It can be a catalyst
- Lean Construction – Streamline Workflow
- Open / Dynamic Partnership
 - Built on Trust

What it is not....

- Silos
- Mistrust
- Disputes
- Posturing
- Back Charge Barrage



(Model designed by Patrick Lencioni as depicted in his book –
The Five Dysfunctions of a Team, A Leadership Fable)

Example Project: Project 'O2'

~~Design / Build~~

Build / Design



- Construction Manager / Engineer (CM / Eng)
 - Architectural
- Four Primes
 - Mechanical
 - Electrical
 - Control / Site
 - Building Shell

- Design Input (Design / Assist)
 - Constructability
 - Schedule
 - Safety
 - Operations / Maintenance
- Project Planning
 - Sequencing “By the team / For the team”
- Information Flow
 - RFI's
 - Design Issues
 - Material / Equipment Constraints
- Project Culture
 - Immediate Action
 - Full Disclosure
 - Quick Support
 - Timely Follow-up
 - Full Commitment

What are the Hurdles?

- **The Current Construction Model & Culture**

A&E → GC's → Subs / Specialty Contractors

Other models are emerging:

- Archistruction
- Partnering

- **Contractual Precedence**

- What legal model do we use?

- **Technology**

- No clear software standard
- Job site data connection issues
- Got enough RAM and data storage?

- **Education**

- What are the CEM programs teaching?
- How are the contractors training their PE's?
- How are the A&E's training their future principles?



What Next?

- **Do we stay the same?**
 - There is no neutral or park on this vehicle.
- **What does the future hold?**
 - We won't recognize this industry in ten years.
 - Don't lead → Don't follow → Collaborate
- **Foreign Construction Trends / Emerging Markets**



What Next?

- **Change the Direction of the Ship**



Depending on size, speed and type of ship, it can take a half-mile to execute a change in direction.

- **New Ship Designs are Coming**