



Lean Construction Institute  
Immersive Education Program

# Effective Big Room

Virtual Course

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October 19, 2020

# Poll

What would be valuable for you in today's session:

- 1\_ What is a Big Room?
- 2\_ I have experience and am looking for tips and tricks for a Big Room
- 3\_ How do we manage a Big Room Virtually?

# Lean Construction Institute

Provider Number H561



## Mindset of an Effective Big Room

LCIV.EBR

Tammy McConaughy

10/19/2020



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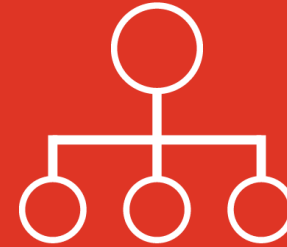
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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

# Course Description

High-performing teams' function on collaborative brain power to rapidly advance work and add value by operating in a Big Room setting. **Effective Big Rooms are only possible with the mindset and behaviors that break down the traditional silos to allow for cross-functional team collaboration and decision-making.** Through the Effective Big Room course, you will gain a foundational understanding of the concept of a Big Room by learning the benefits, purpose, and implementation considerations. This course will lead you to understanding how to improve collaboration and drive transparency within your team to optimize project outcomes.

# Learning Objectives



01.

Participants will define the meaning of a Big Room, and understand the purpose and benefits of implementing the approach to improving project outcomes.

02.

Participants will understand the characteristics and behaviors of a Big Room Team including aspects of effective facilitation.

03.

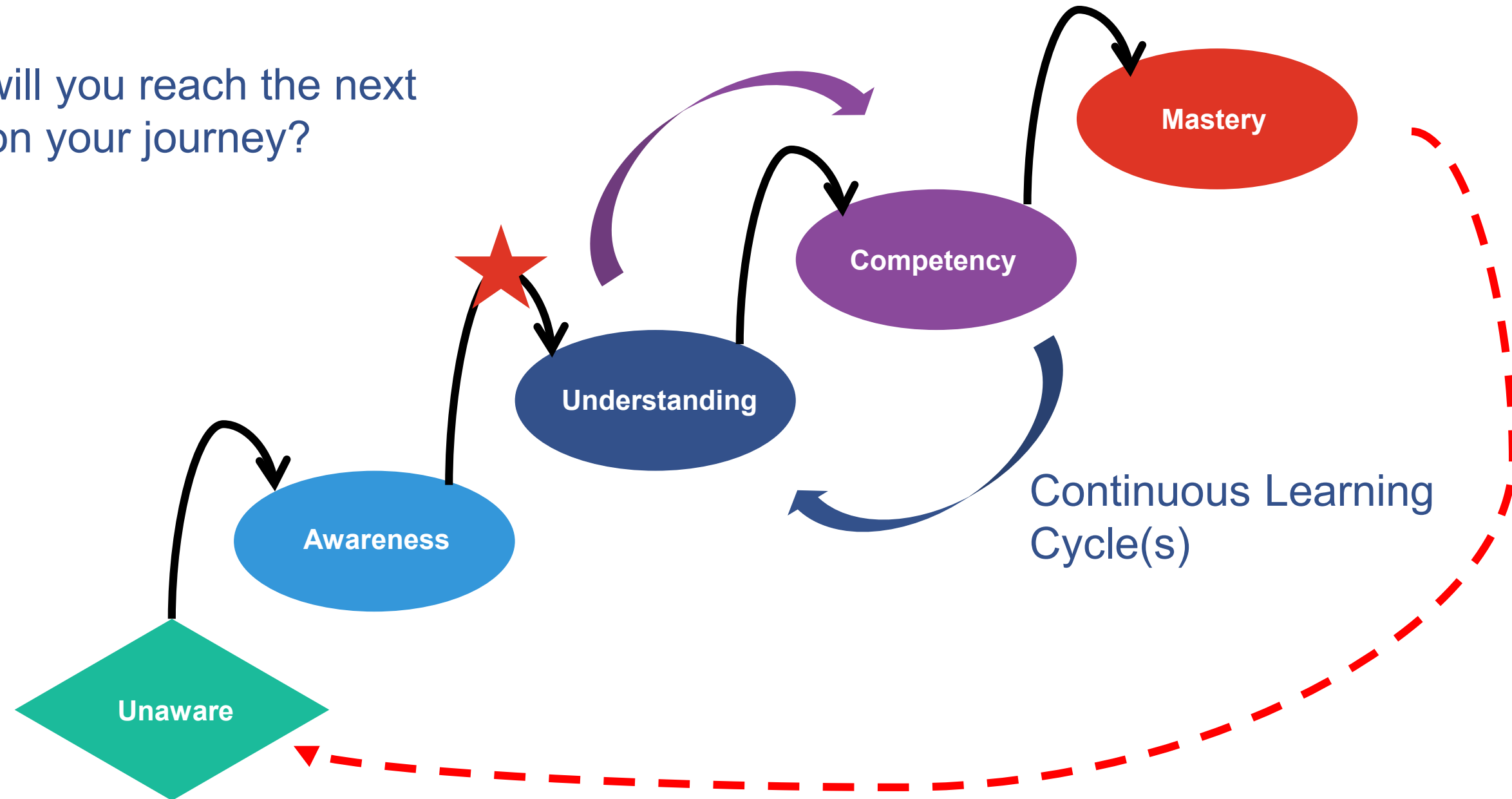
Participants will be able to identify venue types for hosting a Big Room, and discover the key elements for tailoring the space to support collaborative activities.

04.

Participants will gain insights into how the Big Room approach supports knowledge sharing and enhanced collaboration.

# Lean Journey to Mastery

How will you reach the next level on your journey?



# Today's Process

- We will facilitate discussions in small and large groups.
  - Small groups will report back to the large group.
- If you have Big Room experience, great! But prior experience is not necessary.
  - You will be able to think logically about the topics to be discussed.
- We will take “Live Notes” in the Chat Box.
- We will simulate a virtual Big Room while learning.



# Rules of Engagement



This is a safe zone



Use E.L.M.O.



Everyone has equal status



Silence phones



Speak up and share your ideas



Be focused and engaged



Actively listen to others



Stay on time



One conversation at a time



Have fun!



# 1. Introductions Ice Breaker– Breakout Room

Get to know your group!

Name

Company

Role

Years Lean

A favorite non-work activity

A Breakout Team Name

Breakout Discussion

(5 minutes)

# Six Tenets of Lean

- 1 Respect for people
- 2 Optimize the Whole
- 3 Generate Value
- 4 Eliminate Waste
- 5 Focus on Flow
- 6 Continuous Improvement



# Big Room - Definition

**Big Room** refers to a project approach of bringing key individuals together to speed communication and decision-making, and to reduce siloed thinking or approaches.

At its core, the Big Room is a scheduled and recurring event.

It brings key stakeholders together to collaborate, plan, update, solicit resources, invite feedback, demonstrate accountability, make decisions, schedule events and compare the project's current state to the published goals or Conditions of Satisfaction.



Photo Credit: InsideOut Consulting, Inc.



# Big Room - Definition

- A *mindset* of intense focus on advancing work
- Is instrumental in *cross-functional* team collaboration
- Refers to the collaborative *behavior* of a team and the work they are producing
- *Visually displays* all information needed to guide the team



# Co-located or Dispersed

Teams can either be *co-located* or *dispersed* in their set-up.

**Co-located:** Members of the team are located in the same physical location allowing for face-to-face continuous collaboration.

- Co-located teams schedule Big Room sessions to come together with a focused agenda.



Example of a co-located team.

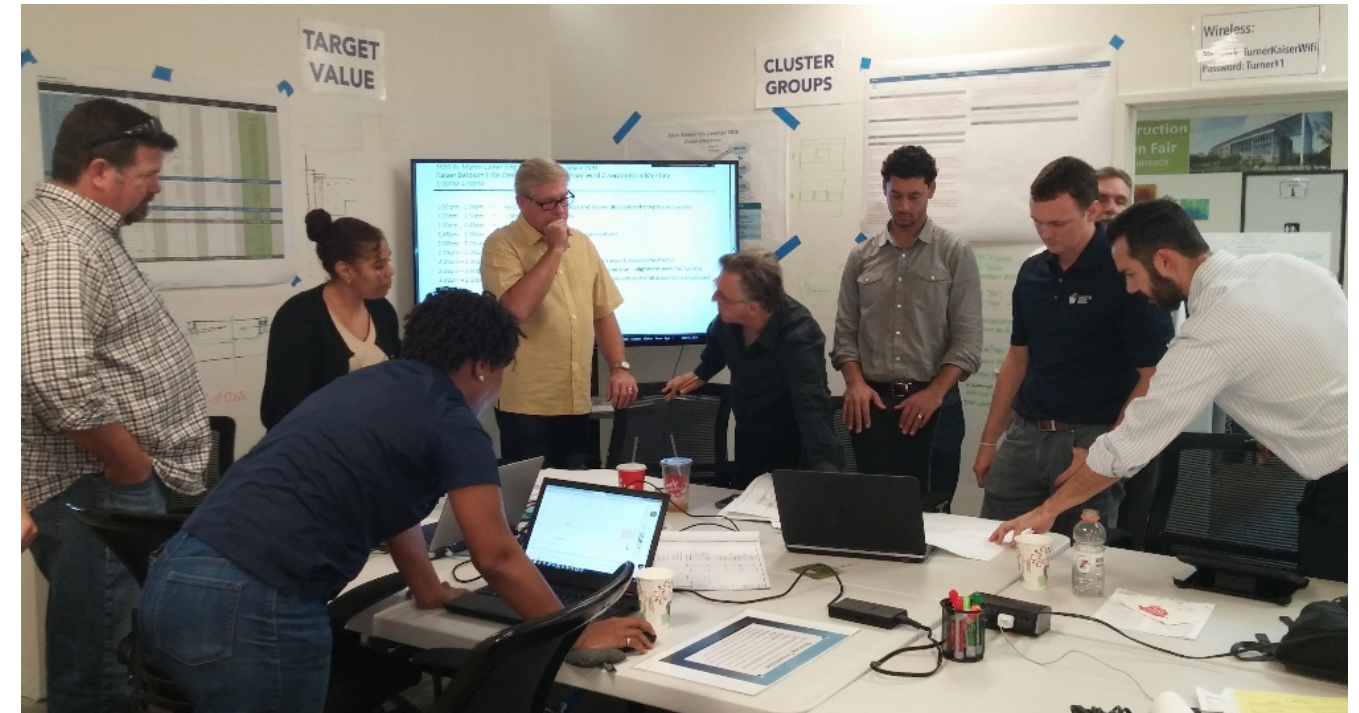


# Dispersed

**Dispersed:** Members of the team are located at their respective company site locations. Face-to-face collaboration may continuously happen within their organization but does not happen with the broader team.

Dispersed Teams can employ differing approaches to the Big Room Session:

- **Recurring in-person sessions**  
The Big Room team meets in person on a scheduled recurring basis.
- **Hybrid sessions**  
Combination of in-person and virtual sessions.



Example of dispersed team in a Big Room session.

# Big Room Implementation

## When:

- As early in the project as possible.
- The frequency must support the work at hand.
- Teams must continuously evaluate the frequency and duration of sessions.

## Who:

- Participants will change overtime as the project advances.



Photo Credit: InsideOut Consulting, Inc



# Big Room Example



# Big Room Example

Small Group  
Collaboration

Visual Information

Collaborative Seating  
Arrangement



Multi-Discipline Team



# Big Room Example



## 2. Discussion Question – Breakout Room

How would a Big Room improve communication?

Breakout Discussion

(5 minutes)

Group 1-4 share a key takeaway

(1 min each)



# Purpose

The purpose of a Big Room is to:

- Support cross-functional high-performing teams in advancing work.
- Add value by driving down overall project costs.
- Facilitate rapid advancement of work in a short time frame.
- Enhance collaborative brain power of the team.

Big Room is a commitment to a project,  
the team, and to working together!



Example of a small project Big Room

# Benefits

A Big Room benefits the project by:

- Improving collaboration through greater team interaction.
- Allowing team members to support each other and align themselves with the goals of the project.
- Breaking down the silo mentality within the project.
- Leading to improved project outcomes.



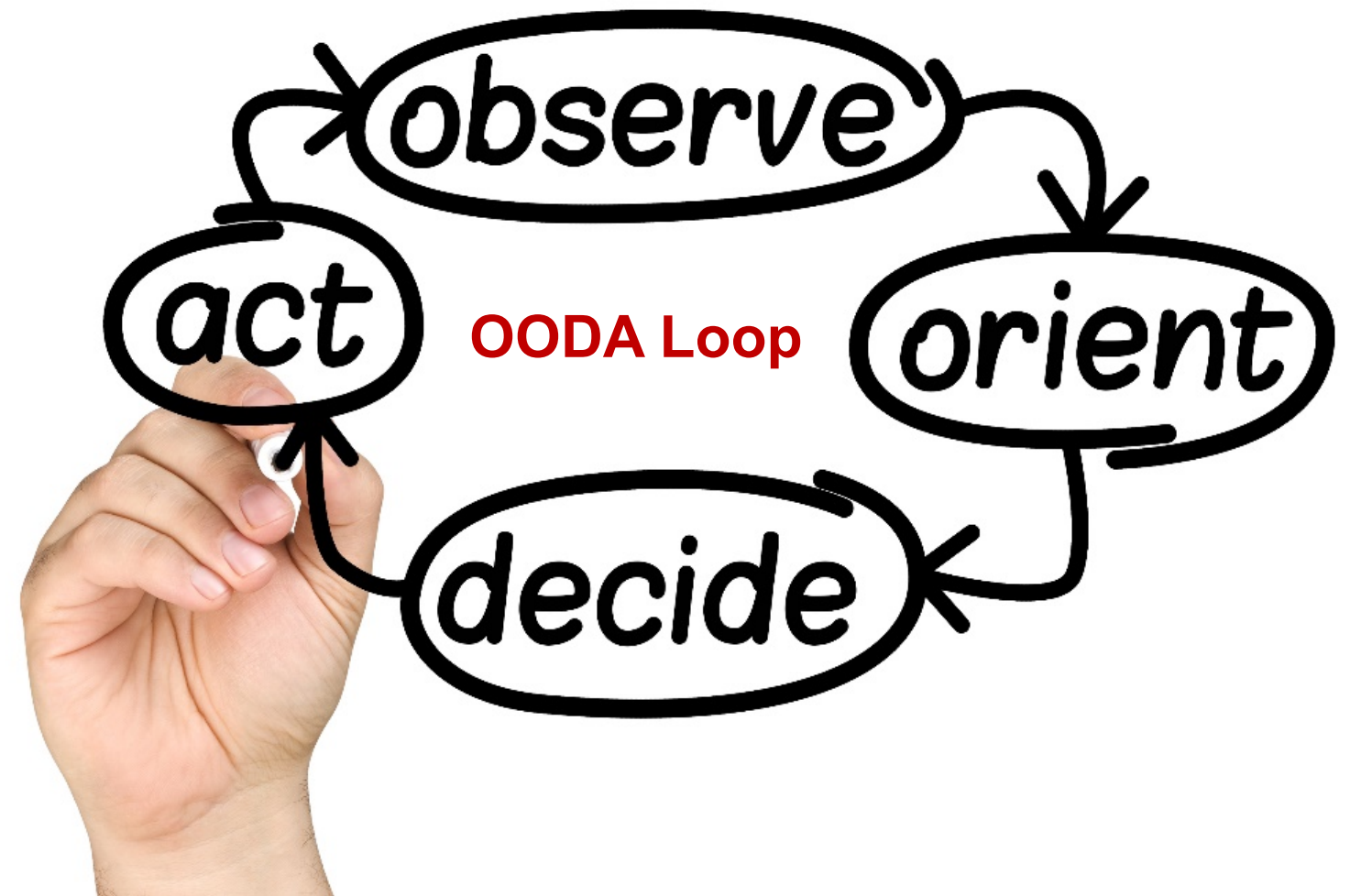
Example of a Big Room

# At the Core:

The Big Room is a space for the team to gather that supports a team in:

- Seeing the situation (Observe).
- Grasping the situation (Orient).
- Making aligned decisions (Decide).
- Taking Action (Act).

The *OODA Loop* is the cycle of Observe-Orient-Decide-Act, developed by military strategist and US Air Force Colonel John Boyd. It is often applied to understanding commercial operation and learning processes.



## 3. Discussion Question – Breakout Room

How does this differ from a typical meeting?

Breakout Discussion

(5 minutes)

Groups 5-9 share a key takeaway

(1 min each)



# Spatial Needs for Activities

- Planning
- Learning
- Team-building
- Collaborative problem solving
- Target cost conversations
- Decision making
- Commitments
- Team health & assessments
- Ad hoc conversations
- Retrospectives
- What else?



Photo Credits: InsideOut Consulting, Inc.

# Collaborative Problem Solving

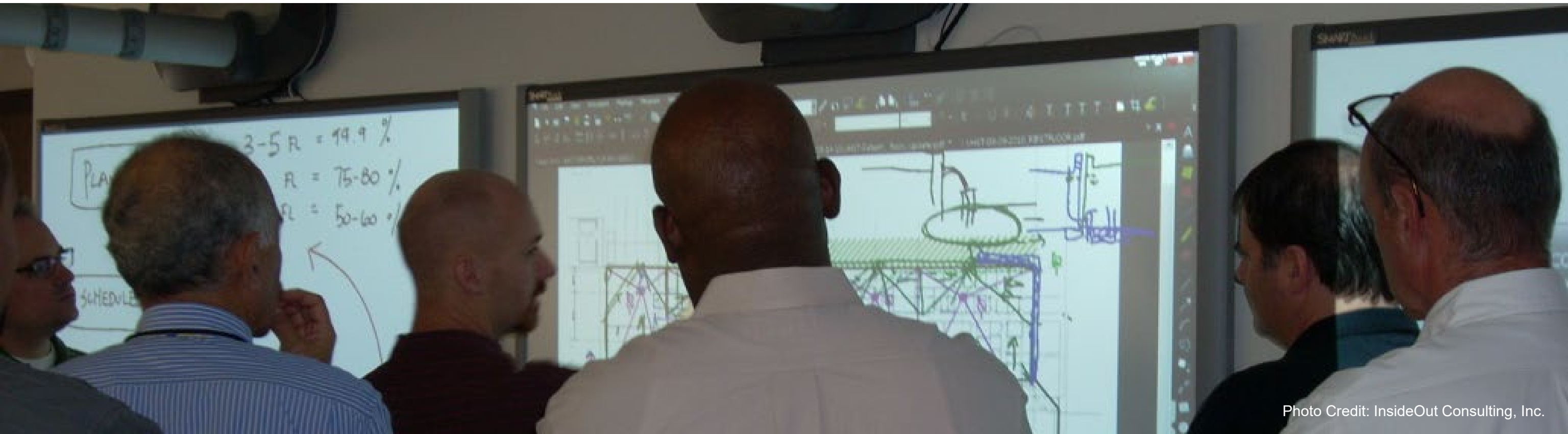


Photo Credit: InsideOut Consulting, Inc.

- Cross functional
- Visual manifestation
- All perspectives
- Explore options
- Gain alignment



# Setting up a Big Room

- Very large configurable room
- Several smaller conference rooms
- Cluster group workspaces
- Planning space (Last Planner System® weekly boards and phase pulls)
- Small private breakout spaces
- Spaces to celebrate
- “Collision spaces” like Kitchen/break room
- Visual information
- Needs to be re-designable as the team evolves



Photo Credits: InsideOut Consulting, Inc.

# Virtual Big Room Considerations

- Online platform for face to face meetings (Zoom, Teams, etc.)
- Everyone has their camera's on
- Shared file and collaboration spaces (SharePoint, Dropbox, Mural)
- Make it fun
- Give everyone a voice.
- No meeting times – for heads down work
- Plan smaller chunks of work for virtual
- Plan for Virtual meeting fatigue



## 4. Breakout Focus Topics

Each breakout group is given a topic to discuss:

1. Desirable Behaviors
2. Effective Facilitation
3. What Could Go Wrong
4. Importance of Learning
5. Onboarding New Team Members
6. Technology Needs
7. Meetings That Advance Work
8. Visual Management
9. Virtual Big Room

Breakout Discussion

(10 minutes)

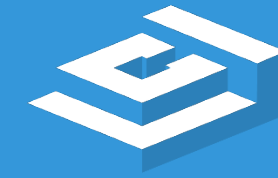
9 groups share key takeaways  
(2 min each for 20 total)

## 4. Guidelines

### Discuss in your breakout group

- One person facilitate – make sure everyone talks.
- One person be the note taker.
- One person take responsibility for leading the key takeaway report-out.
- Define the subject: what does it mean in the Big Room?
- Brainstorm topics and ideas.

Breakout Discussion  
(10 minutes)



# 1. Desirable Behaviors

Group to share key takeaways  
(2 min each)



# Desirable Behaviors

- Overcoming silos
- Leadership
- Conditions of Satisfaction (CoS)
- Respectful collaboration
- Maintaining enthusiasm
- Trust & respect
- Learning



Temecula Valley Hospital Big Room



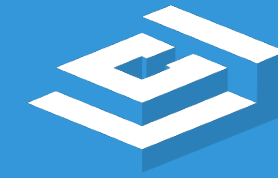
# Develop team agreements for work habits

**Similar to meeting rules, establish guidelines for how everyone can work together virtually.**

- **Some ideas:**
  - Develop a group text to quickly relay information.
  - Establish core working hours for the project team.
  - Maintain regular meeting schedule
  - Utilize virtual “breakout rooms” to take your teams into smaller groups.
  - Document key issues / problems using A3s.

## The A3 Report

Background	Future State & Countermeasures
<ul style="list-style-type: none"> <li>- Why do we need to work on this?</li> <li>- Context</li> <li>- Importance</li> </ul>	<ul style="list-style-type: none"> <li>- Actions being taken to address the issue (what, who, when)</li> <li>- Quick fixes (Containment actions)</li> <li>- To Be process map</li> </ul>
Current State	Impact
<ul style="list-style-type: none"> <li>- Problem statement/definition</li> <li>- As Is process map</li> <li>- Scale of the problem (data)</li> </ul>	<ul style="list-style-type: none"> <li>- Results achieved</li> <li>- Trend graph (before/after)</li> </ul>
Objective	Follow-up
<ul style="list-style-type: none"> <li>- Target level of performance</li> <li>- Desired outcome</li> </ul>	<ul style="list-style-type: none"> <li>- Actions still required (what, who, when)</li> <li>- Learning points to share</li> </ul>
Root Cause Analysis	
<ul style="list-style-type: none"> <li>- Fishbone diagram</li> <li>- 5 Whys</li> <li>- Data (Pareto, Scatter diagram)</li> </ul>	



## 2. Effective Facilitation

Group to share key takeaways  
(2 min each)

# Effective Facilitation Practices

- Collaboratively developed
- Clear
- Standardize where possible
- Visual controls
- Key participants
- Expected Outcomes
- Time keeper
- Scribe for live notes

**UHS Temecula Medical Center - Big Room Agenda**  
*Predict, Plan, Perform, Perfect*      *Intent, Capability, Results, Integrity*

Date: Tuesday, July 12      Facilitator: Jeff H.      UHS Onsite: Tara      Visitors:

Big Room		Temecula		Corona	
7:30	HOSPITALITY AND SET UP (GoTo)	7:00	BREAKOUT: Budget Cluster Attendees: MegaYots, DA, DS, TM, TS, KL, ES, SD, SW, TL, BK		
8:00 To 8:15	INTRODUCTIONS AH HA MOMENTS CHECK-IN CLUSTER LEADER REPORT OUT				
8:15 to 9:00	- HOT TOPICS • ESA Extension Action Plan Sharing Reflection COP ○ Feedback & Sharing of knowledge Scott D (L) - ALL			8:30 to 12:00	CORONA TEAM
9:00 To 11:00	Pull Planning: Itemize time slots before start 1. Construction Milestones - Steve Y 2. Inc 3 B4 QA/QC 3. Procurement - Details for next 2-3 mos a. Balance of trade partners b. Agree on target date/updates for all trades 4. Site Grading Status Updates/Pull Plan a. Permit status, bid status, award of trades. 5. Increment 5, 8 Pull Plan ATTENDEES: Salfu/YK, Steve H., 6. BIM Update Pull Plan - Dustin/Jason K. a. Update schedule & plan 7. Structural Pull Plan - Schuff/YK REQUIRED	10:30 to 11:30	Constructability Review Steve Y (L), Bob, Dean, Ken, Marius, Ward, Ed, Scott D, Steve H.,		
11:00 to 11:30	NEXT WEEK'S AGENDA				
11:30 to 11:45 FLEX TIME					
11:45 to 12:00 Plus/Delta (Save smart boards)					
12:00 to 12:30	LUNCH - ??? HEAD COUNT	12:00 to 1:30	Core Team Attendees: Dave S (L), Steve W, GZ, Tara, Rebecca, Ken, Scott, Bob, Ed, Tom M., Steve Y., Kelley, Cynthia (GoTo)		
1:30 to 2:30	Inc. 5 Page Turn • Bring Drawing Sheet index & Half size set Attendees: Ward (L), Ken, Sun, Dan, Steve H., Imelda, Scott D., Carlos, David S., Corey, Rahim, Jason N., Marius, Natasha				
2:30 to 3:45	Hazardous Materials Inv • Develop a plan that leads to completion in 2 weeks Attendees: Marius (L), Ward (L), Steve W (L), Ken, Rebecca, Tara, Dave Smith, Electrical			2:30 to 4:00	COMMUNITY OF PRACTICE • Debrief Conversation • Onboarding Review • Study Action Team • Next week's Agenda • Plus Delta Attendees: Steve Y, Dean, Dan, Corey, Chris.
3:45 to 4:00	FLEX TIME				
4:00 to 4:15 Plus/Deltas (Save smart boards)					

Photo Credit: InsideOut Consulting, Inc.

# Meeting Rules of Engagement

- Safe zone
- No stripes
- Speak up
- Listen to others
- No side-bar conversations
- No cell phone use
- No multi-tasking
- Stay on time

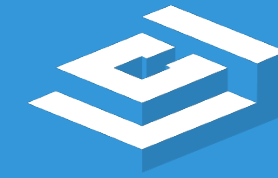


# Stay on Track



ENOUGH  
LET'S  
MOVE  
ON





### 3. What could go wrong?

Group to share key takeaways  
(2 min each)

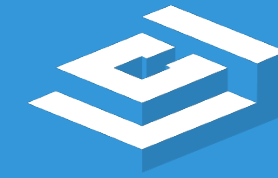
# Commonly Occurring Risks

- The team spirit diminishes and people gravitate to their silos and “us-them” thinking.
- Death by meetings – we don’t have time to do our work because we’re always in meetings.
- Enthusiasm wanes, this becomes just another day.
- Meetings start late because of late arrivals.
- Leadership quits listening and becomes directive.
- Planners don’t follow the plan, go rogue.

# Drift to Traditional....







## 4. Importance of Learning

Group to share key takeaways  
(2 min each)

High-performing teams **continuously learn** together. This supports “Continuous Improvement” (Lean Tenet #6).

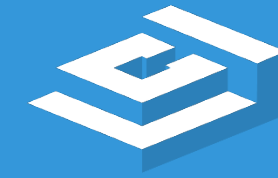
- Teams identify many ways to continue to learn including:
- Focused training sessions.
- Reading and discussing a book together.
- Viewing and discussing short videos together.
- Simulations that reveal an Ah Ha Moment of realization, inspiration, insight, recognition, or comprehension.



# Retrospectives/Continuous Improvement

- Quick retrospective – conducted at the end of every meeting.
- Regular occurring retrospective – conducted at the completion of work cycles.
- Event-based retrospective – conducted at the completion of major milestones.
- Impromptu - when a breakdown is declared or other reason arises.





## 5. Onboarding

Group to share key takeaways  
(2 min each)



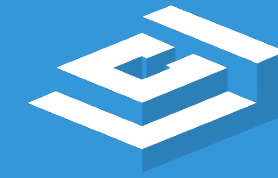
# Onboarding Considerations

- Who
- When
- How can you get them “up to speed” on:
  - Project status and milestones
  - Team culture
  - Expected/desired behaviors
  - Safety
  - How we plan and execute
  - What we expect when problems occur

Onboarding is not a one-time event; it is a continuous process where concepts and culture are always reinforced.

# Onboarding





## 6. Technology

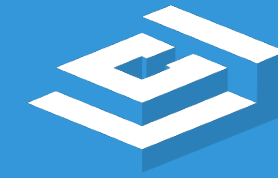
Group to share key takeaways  
(2 min each)

# What technology support is needed?

- SMART type boards
- Video conferencing
  - Large group
  - Individual with remote team members
- White boards
- Internet / companies' connectivity limitations
- PM/Documentation Software
- Shared files vs. separate networks
- Printing & Plotting
- Projection







# 7. Meetings That Matter

Group to share key takeaways  
(2 min each)

# Planning

- Planning has a Design Phase and a Construction Phase application



Photo Credits: InsideOut Consulting, Inc.



Reporting

A3 DASHBOARD





# Decision Making

- A3 thinking
  - collaborative document managed by a single champion.
- Choosing by Advantages (CBA)
  - a collaborative decision making system to help simplify, clarify and unify the decision making process.

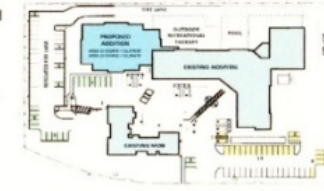
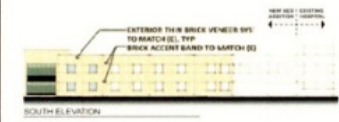
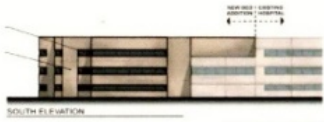

A3 #	Title	Revision	Champion	Date Started	Collaborators	Approved By	Date Approved	Status	
04	Option to build structural infrastructure for a future third floor or build a third floor shell.	1	N. Pera	3/27/2012	J. Gore, S. Stack, R. Migliori, S. Truesdale, N. Pera, J. Allen, K. Cook, S. Rasmussen	-	-	<input type="checkbox"/> Development <input checked="" type="checkbox"/> Collaborative Review <input type="checkbox"/> Implementation	FREMONT HOSPITAL
Section 1 - Define / Background Information									
<p>Project design services are approved for a 52 Bed, two story, 22,000sf bed wing. Project will be designed as an I Occupancy OSHPD Category 3. UHS Fremont could use space immediately. The project models are currently figured as shallow foundations with a strl steel frame. Initial budget targets where explored at \$235K/bed, however UHS has expressed an interest to reduce the targets 20-25% to align them closer with other US built facilities.</p> <p>March 27, 2012</p>									
Section 2 - Problem Statement / Current Condition									
<p>Fremont Hospital has observed a need for additional beds and has been turning potential patients/revenue away due to lack of onsite beds. This bed addition may be the last potential development on this site for the foreseeable future. If provisions are not made to maximize the size of this addition, the site may never be able to add additional beds without incurring significant costs. With current setbacks this is the last buildable site area and future construction would be limited to demolition of existing structures.</p>  <p>Proposed Addition Leaves No Future Buildable</p> <p>March 27, 2012</p>									
Section 3 - Future Goal / Target Condition									
<p>Provide options which allow for future expansion of beds or general office space.</p> <p><b>Target Condition 1</b> Build a new two story bed wing addition with no accommodation for a future floor.</p> <p><b>Target Condition 2</b> Increase foundations and structural frame to accommodate future added third floor.</p> <p><b>Target Condition 3</b> Build third floor in shelled out condition.</p> <p><b>Target Condition 4</b> Build third floor with 26 new beds including all interior improvements.</p>  <p>2 Story Rendering</p>  <p>3 Story Rendering</p> <p>March 27, 2012</p>									
Section 4 - Analysis / Think									
<p>We worked with the onsite facilities team to track down the existing structurals drawings. Currently a soils report is not available, however the existing structural drawings clearly indicate that a deep foundation option was not used with in the original design. Until the geotech report is completed we can not confirm whether or not deep foundations will be required due to specific findings or new structural codes.</p>  <p>Existing Foundation Plan</p> <p><b>Target Condition 1 - No Third Floor</b> Cost Variance To TVD \$ - Schedule Variance (Weeks) +0 Weeks This allows for no future site growth given the projects site geography and setbacks.</p> <p><b>Target Condition 2 - Structural Infrastructure For Third Floor</b> Increase the structural columns and braces to accommodate a future third floor + 1.25-1.75lb/sf for gravity columns and increased brace sizes. Foundation concrete would increase by approximately 40-50 cuysd. Low Cost Variance To TVD \$ 70,000 Schedule Variance (Weeks) +0 Weeks High Cost Variance To TVD \$ 445,000 *** Potential cost if unfavorable soils. +4-5 Weeks Lowest initial cost premium to accommodate a future 3rd floor. Codes change on a periodic basis and this does not guarantee that this design will meet future codes. Future construction would also be burdened with removal and reinstallation of roof top MEP equipment. The 3rd floor could not be added without significant disruption incl temporary 1st and 2nd floor vacancy.</p> <p><b>Target Condition 3 - Shelled Third Floor</b> Adds complete structure, exterior skin, conveyance, and MEP infrastructure for future bed wing. Low Cost Variance To TVD \$ 1,800,000 Schedule Variance (Weeks) +4-5 Weeks High Cost Variance To TVD \$ 2,175,000 *** Potential cost if unfavorable soils. +8-10 Weeks The 3rd floor could be added with minimal disruption, wont not require 1st and 2nd floor vacancy. The 3rd floor TI construction would be significantly more expensive due 1st and 2nd floors occupancy.</p> <p><b>Target Condition 4 - Third Floor Built Out With 26 Beds</b> Complete finished/built out 26 bed unit. Low Cost Variance To TVD \$ 5,350,000 Schedule Variance (Weeks) +6-8 Weeks High Cost Variance To TVD \$ 5,725,000 *** Potential cost if unfavorable soils. +10-12 Weeks Maximizes the site bed count.</p> <p>April 9, 2012</p>									
Section 5 - Proposed Counter Measures /Plan									
Revised this A3 to include potential high end costs if soils report does not come back favorable.									
Section 6 - Follow Up									
TBD for outcome of UHS internal meetings.									

Photo Credit: InsideOut Consulting, Inc.

# Target Value Tracking Activities

- Target Cost Tracking Transparency
- Risk Identification
  - Mitigation strategy
  - Cost
  - Rank
- Path Back Identification

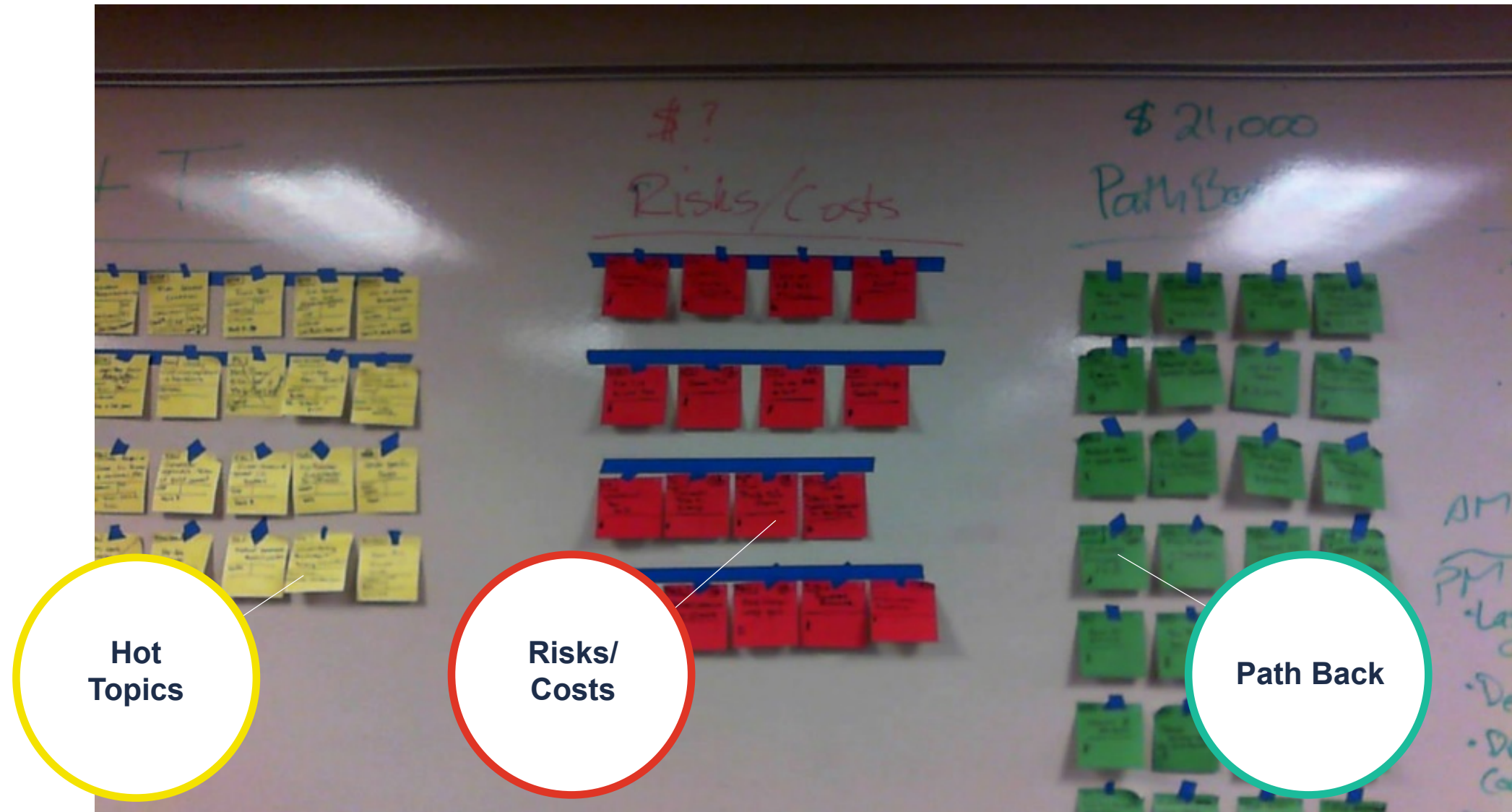
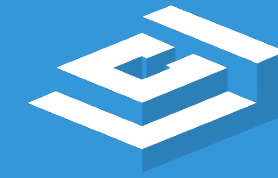


Photo Credit: InsideOut Consulting, Inc.



## 8. Visual Management

Group to share key takeaways  
(2 min each)



# Visual Information Goals

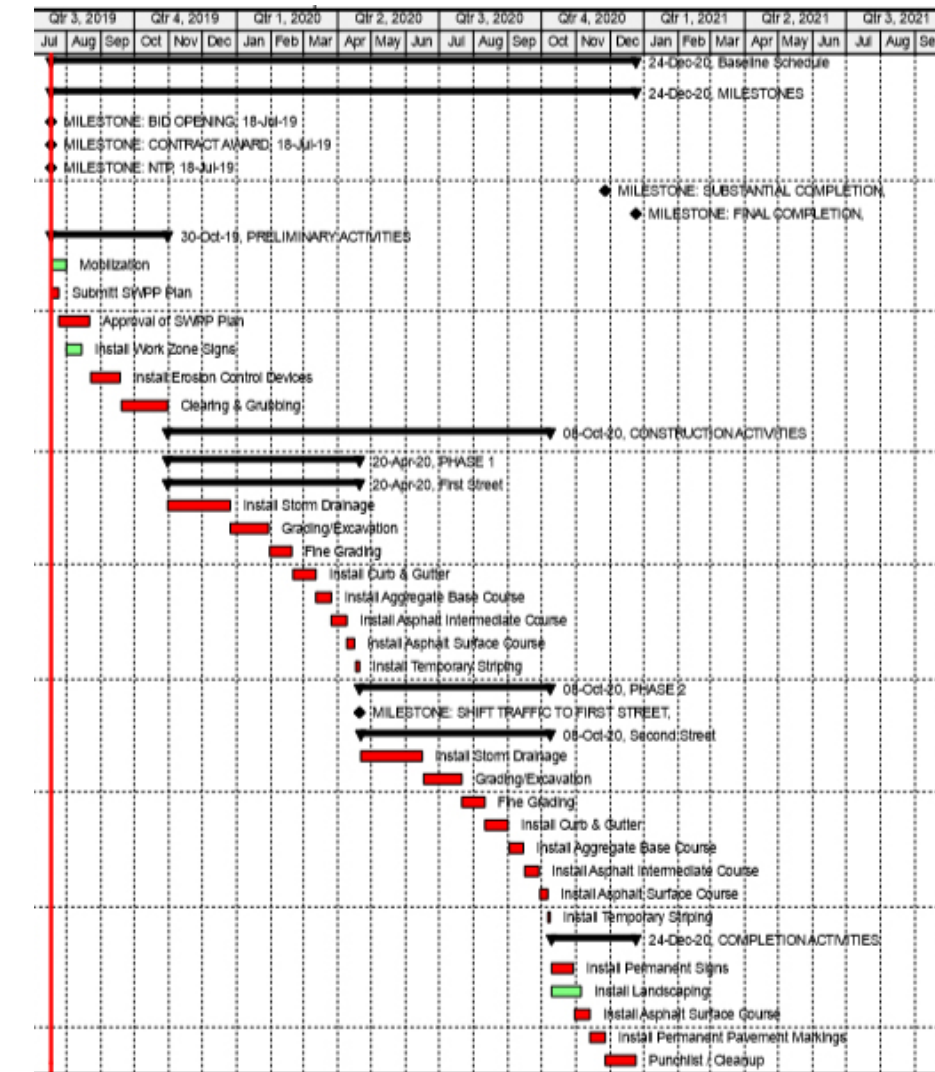
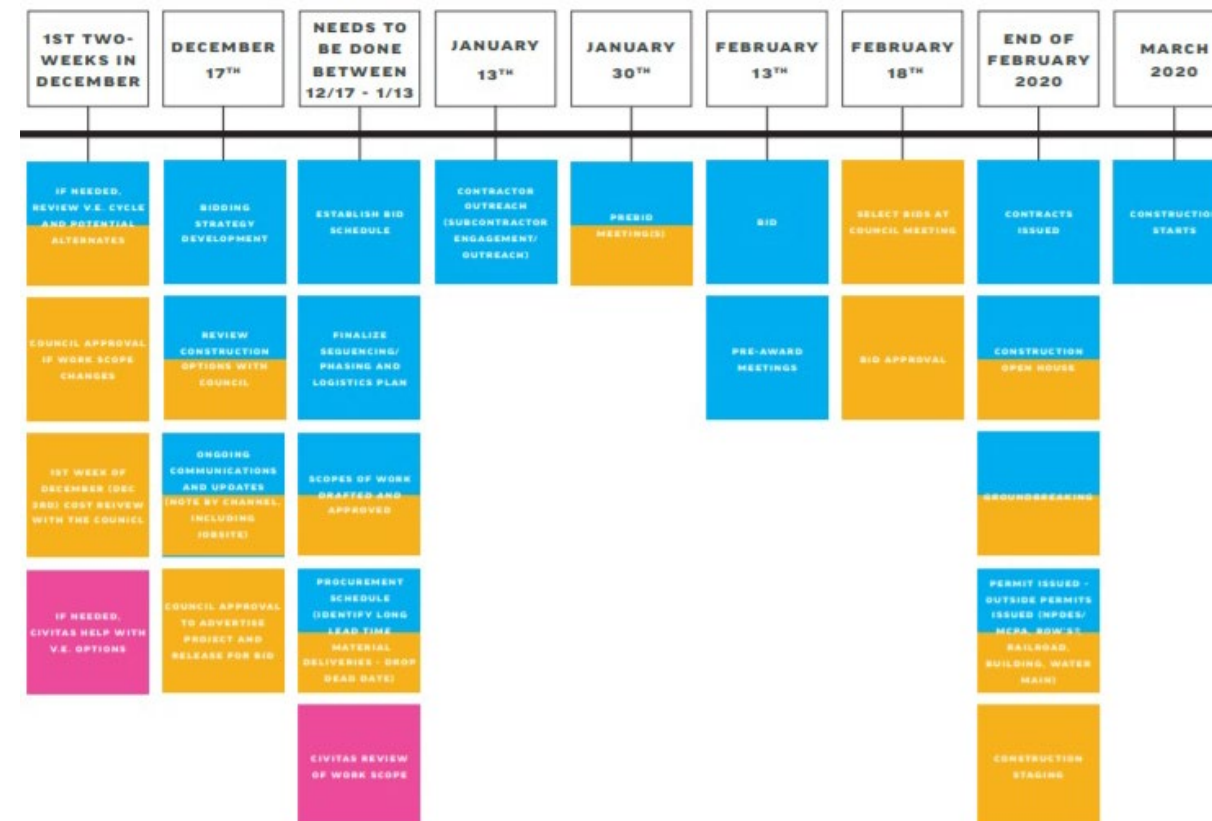
- Goals of visual management include:
- Communicating information clearly with others.
- Communicating standards and alerting to deviations.
- Allowing immediate response to deviations or irregularities.
- Simplifying and highlighting information.
- Supporting a culture of clear and effective communication.
- Providing immediate access to the right information needed to perform the work.

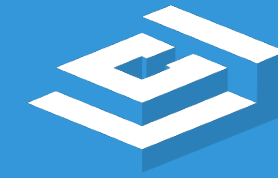


Courtesy of DPR Construction



- **Make sure your visuals are**
  - Interesting
  - Colorful
  - Simple
  - Informative
  - Non-judgmental





## 9. Virtual Big Room

Group to share key takeaways  
(2 min each)

# Creating / Keeping the Team Camaraderie

**Camaraderie:** Mutual trust and friendship among people who spend a lot of time together.

- **Cameras on**
- **Virtual happy hour**
- **Virtual team lunch**
- **Celebrate micro-wins**



Example of dispersed team in a zoom meeting..

# Group Discussion Question – Chat Box

## New Actions?

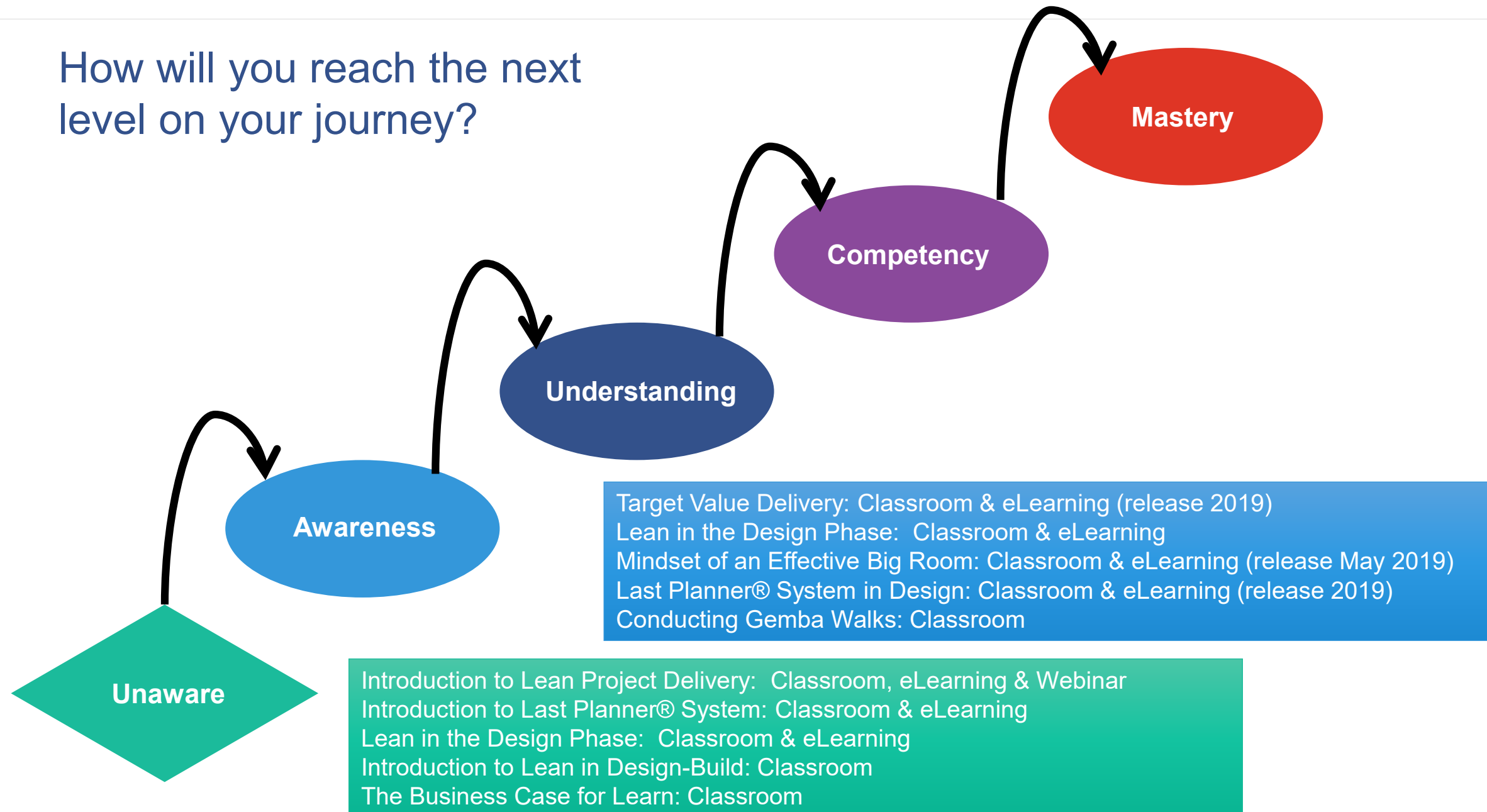
What new actions or ideas that you learned today can you take back to your project?

Chat Box  
3 minutes



# Lean Journey to Mastery

How will you reach the next level on your journey?



# More on Learning

## Books:



## Events:

- Local Community of Practice
- Congress (October)
- Design Forum (May)

## eLearning:


Learn on your own time without taking time off project work.

**Start learning now:**

[www.LeanConstruction.org](http://www.LeanConstruction.org)

# eLearning Courses

- Introduction to the Last Planner System®
- Introduction to Lean Project Delivery
- Lean in the Design Phase
- Effective Big Room
- Target Value Delivery
- Last Planner System® in Design




Introduction to the  
Last Planner® System

Please enter your first name below  
then click the button to begin.

type your text here

**BEGIN**



**WELCOME**

This course will allow you to gain in-depth insight to the practical application of the Last Planner® System (LPS) through multimedia, hands-on interactions, diagrams, worksheets, and more. The key achievable goal of this course is to learn how to engage at all five levels of LPS effectively on a day-to-day basis with a team implementing the system.







Participate In A Group Video Meeting earn 3 points.

2ND LEARNING SESSION

### LCI Effective Big Room



Lindsay Rosti  
J.E. Dunn Construction  
Sr. Lean Specialist



Tammy McConaughy  
J.E. Dunn Construction  
Senior Lean Specialist

9:45 AM - 11:45 AM MDT on Monday, October 19  
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High-performing teams function on collaborative brain power to rapidly advance work and add value by operating in a Big Room setting. Effective Big Rooms are only possible with the mindset and behaviors that break down the traditional silos to allow for cross-functional team collaboration and decision-making. Through the Effective Big Room course, you will gain a foundational understanding of the concept of a Big Room by learning the benefits, purpose, and implementation considerations. This course will lead you to understanding how to improve collaboration and drive transparency within your team to optimize project outcomes. Learning Objectives: Define the meaning of a Big Room, and understand the purpose and benefits of implementing the approach to improving project outcomes. Understand the characteristics and behaviors of a Big Room Team including aspects of effective facilitation. Identify venue types for hosting a Big Room, and discover the key elements for tailoring the space to support collaborative activities. Gain insights into how the Big Room approach supports knowledge sharing and enhanced collaboration. This course is registered with AIA CES for 2 LU credits.

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M2F

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INTERMEDIATE

0

DAYS

0

HRS

36

MIN

28

SEC

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# LCI Contact Information

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This concludes The American Institute of Architects  
Continuing Education Systems Course

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Lean Construction Institute



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