



AGC
THE CONSTRUCTION
ASSOCIATION

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Lean Construction for Trades Toolbox Talk Series

Developed by the AGC Lean Construction Forum

CM-LEAN
CERTIFICATE OF
MANAGEMENT
LEAN CONSTRUCTION

.25 CM-Lean CE Credit | AGC of America recognizes this series as qualifying for continuing education hours towards the renewal of AGC's Certificate of Management-Lean Construction (CM-Lean).

Lean Construction for Trades Toolbox Talk Series Goals

- Introduce Lean Construction concepts in the field through conversational learning
- Recognize opportunities to review and improve current processes
- Describe how to empower each other to identify and eliminate waste, work safely, and reduce overproduction
- Adopt a Lean culture

Lean Construction for Trades Toolbox Talk

Session Goals: Visual Communication Tools

- Learn how to establish better commitments and a more reliable workflow in the field
- Learn how to bridge communication gaps more effectively
- Learn how to increase accountability amongst all field team leaders

“Visual Communication Tools” developed by Joe Donarumo, LINBECK



Visual Communication Tools

- Why are visual communication tools effective?
- How can visual communication tools enhance engagement and buy-in with trades?
- What role do visual communication tools play in teambuilding?
- How can you help make visual communication tools more beneficial to the team & project?



Floor Plans/Elevations Under Laminate + Dry Erase Markers

Dry erase markers - different color per trade

Trade partners visually & verbally tell the team:

1. What they are working on;
2. Where they are working;
3. How many crews/workers are on-site;
4. Where there are constraints;
5. What material deliveries are coming up.



By using dry erase markers that are color-coded to their work, marking up the floor plans on the wall as a team is one of the simplest ways to visually communicate all planned activities with all construction trades on the jobsite.

Material Delivery Board



	9	10	11	12	
DELIVERY BOARD	Monday	Tuesday	Wednesday	Thursday	
1 Company/Trade	FUSI FILM		RUNNING GEAR		
2 Foreman Name/Phone Number	DAVID - 817 215 7662		JOE - 817 215 7662		
3 Materials Being Delivered	RAD ROOM EQUIP.		CANNON DE-MOB		
4 Delivery Time	8 AM		9 AM		
5 Delivery Company Name	FUSI		RUNNING GEAR		
6 Truck Type	SEMI		SEMI / TRAILER		
7 Unload Area	WEST DOORS		NORTH SIDE		
8 Unload Method	SEMI TRUCK		N/H		
1 Company/Trade	MECH FAB				
2 Foreman Name/Phone Number	IAN - 817 215 0808				
3 Materials Being Delivered	CANOPY				
4 Delivery Time	7 AM				
5 Delivery Company Name	MECH FAB				
6 Truck Type	16' TRAILER				
7 Unload Area	EAST SIDE				
8 Unload Method	SEMI TRUCK				
1 Company/Trade					
2 Foreman Name/Phone Number					
3 Materials Being Delivered					
4 Delivery Time					
5 Delivery Company Name					
6 Truck Type					
7 Unload Area					
8 Unload Method					

Room for each day of the week

Space for multiple deliveries

Used to help the trades answer the following:

1. What is being delivered?
2. What time is it being delivered?
3. What company is delivering it?
4. What type of truck is it coming in?
5. Where will it be unloaded?
6. How will it be unloaded (by hand, by lift, by crane, etc.)?

By communicating this information visually, all team members know the logistics of building materials coming onto the site. These boards also ensure that project deliveries are “just in time,” which is a system for producing or delivering the right amount of parts or product at the time it is needed for production.

Inspections Board



INSPECTION BOARD	Monday	Tuesday	Wednesday	Thursday	Friday
Company/Trade	12/19 MAECK		12/19 MAECK		12/16 BRANDT
Foreman Name/Phone Number	Chuy		Chuy		Chuy
Inspection Type	Thermal		Framing		12-16/16-18/18-20
Inspection Needed: Lab / City / Linbeck QC	COGA		COGA		COGA
Inspection Time	2pm		2pm		Am
Date Inspection Called In	12/16		12/19		12/14
Confirmation Number	PACS				
Result					
Company/Trade					
Foreman Name/Phone Number					
Inspection Type					
Inspection Needed: Lab / City / Linbeck QC					
Inspection Time					
Date Inspection Called In					
Confirmation Number					
Result					
Company/Trade	BRANDT				
Foreman Name/Phone Number	Chuy				
Inspection Type	Go By TCBQ				
Inspection Needed: Lab / City / Linbeck QC					
Inspection Time	11:30a				
Date Inspection Called In	N/A				
Confirmation Number					
Result					

Room for each day of the week

Space for multiple inspections

Used to answer the following questions:

1. What is the inspection/what is being inspected?
2. Who requested the inspection?
3. What date/time was the inspection requested?
4. What date/time will the inspection occur?
5. What are the results of the inspection?

Inspection boards can help everyone onsite know when project inspection dates are occurring and what the current status is, which can help with productivity onsite.

Lean Dashboards / Look-Ahead Scheduling

LINBECK										2 WEEK LOOK-AHEAD BOARD													
PROJECT NAME:										PROJECT #:													
PPC Root Causes: 1. Incomplete Weather 2. Inadequate Manpower 3. Lack of/Failure of Machinery 4. Design (RFI, Submittals, Etc.) 5. Make Ready 6. Materials 7. Poor Scheduling										CONSTRAINTS													
#	TASKS	PPC	Root Cause	Y/N	#	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Tue	Wed	Thur	Fri	Sat	Sun				
1	• DFW • TRICE • MEEK • KILGORE • FISK	Safety	OC																				
2	• VADENS • PAFA • FIB FLOORS • ANTON	Safety	OC																				
3	Doors and Hardware	Safety	OC			3	3	3	1	1													
4	Ceiling tile complete	Safety	OC			2	2	2	4	4													
5	Wire pulled in Both lobbies (FIRE ALARM)	Safety	OC			1	2																
6		Safety	OC																				
7	FLOORING LEVEL 1	Safety	OC			5	5	5	4	5													
8	FLOORING LEVEL 2	Safety	OC							1			5	5	5	5							
9	2ND FLOOR COMPLETE 1ST COAT	Safety	OC			3	3	3	3	3													
10	PAINT 1ST FLOOR (EXCEPT FINAL COAT)	Safety	OC			2	2	2	2	2													
11	GYM PAINT	Safety	OC																				
12	CALKING THE EXT WALLS ON 2ND FLOOR AROUND THE BLDG	Safety	OC			2	2																
13	COMPLETE BGM 300 ITEMS	Safety	OC					2	2	2													
14	Anton - Mill/Locks (Green area)	Safety	OC					2	2	2													
15	level 1 reception desk	Safety	OC					2	2	2													
16	level 1 - Exam room mill/locks (Purple)	Safety	OC			3	2																
24	level 2 - reception desk	Safety	OC			2																	
25	Ceiling device install	Safety	OC			4	4	4	4	4													
26	Wall device install	Safety	OC			3	3	3	3	3													
27	Site lighting	Safety	OC			0	2	2	2	2													
28		Safety	OC																				
29	INSTALL FABRIC DUST	Safety	OC			2	2	2	2	2													
30	REMOVE CEILING GYPSUM, GYPSUM TREATMENT	Safety	OC			1	2																
31		Safety	OC																				
32	Finish on Columns	Safety	OC			2	2																
33	Scaffold	Safety	OC			2																	

MISSING HARDWARE / GEN PRD DOORS

EX. WAITING AREAS

14 DAYS C.O.

MAINTENANCE SCHED

(14) DAYS
C.O.

MAINTENANCE
SOUTH

Milestones are displayed so entire team is aware of and aligned towards current goals.

THIS WEEK'S MILESTONES

MILESTONES

#	Date		#	Date	
1	9/10	LIGHTING/RECEP PRECX	8	9/13	ROOF CAP 100%
2	9/11	CCMC PURPLE CEILING INSP	9	9/13	DOOR PRE CX
3	9/11	PLUMB PRECX	10	9/13	PUMPING CX
4	9/10	LIFESAFETY/FE PRECX	11		
5	9/12	LIFESAFETY/FE CX	12		

Constraint Board

Dry erase markers - different color per trade

Trade partners make commitments to entire team

Constraint boards track:

1. What the constraint is
2. Where it is occurring
3. Who is responsible for resolving it
4. When it will be resolved

CONSTRAINT RESOLUTION BOARD	
#	Issue/Constraint
1	BOWARDS - WHIT 9/16 EST. DELIVERY
2	REPAIRING WALL START 9/16 - 9/20
3	BOSWORTH HANDRAIL / DUMPSTER GATE
4	ELEVATOR ✓ LIST ↓ BELOW 9/17 STATE INSPECTION
5	POSS CONTROL WIRES → JASON 9/10
6	Z TRIM CONFIRMATION - ANDY K 9/10
7	DOMESTIC WATER - DUNKIN 9/10
8	PERM GAS SERVICE?
9	9/16 LEAD DUES / MASS INSTALLED - JOHN / BOBBY
10	LINBECK BANDO WORK START 9/16
11	DEAL HOES AND STAIRS / LOT OUT STAIRS STEVE 9/9
12	SET CABINETS SCOPE PHONE 9/9 - STEVE
13	PAINT LHM CEILING 9/10 START - WALDO
14	FPP 100HT 9/9 - OSCAR / FPP @ LOSS T

Next Steps/Application:

1. How can you make your jobsite/workplace more visual?
2. What is the most important thing your team struggles to communicate? Start there!
3. Involve your entire team!



1. Establish and maintain a reliable workflow in the field.
2. Bridge communication gaps and facilitate better trade to trade communication.
3. Build accountability amongst all team members.
4. Keep it simple and effective! Focus on what's important to the team!

Printable Card

Visual Communication Tools