



**Lean Construction Institute**  
Immersive Education Program

# 21 Common Mistakes when Deploying Lean and Last Planner System® on Projects ...and how to fix them!

Via 90 Minute Webinar, June 24, 2021, 11am EST

# Presenters



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# Webinar Agenda



## 21 Common Mistakes

when Deploying Lean  
and  
Last Planner System®  
on Projects  
...and how to fix them!

- High-level Lean/LPS® issues
- Milestones
- Pull Planning
- Make-Ready Planning
- Weekly Work Planning
- Learning from variances
- **Q & A** – Please Enter Questions & Comments in Chat!

Mistake

# 1



Thinking Lean is only about efficiency, saving \$, or going fast

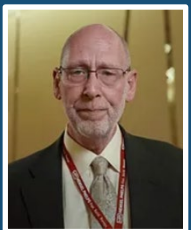
The  
Fix



Keep in mind Lean is also about:

- **Continuous Improvement**
- **Respect for People**

*Ask “What do you think?”*



Mistake

# 2



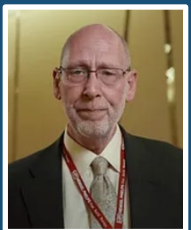
Thinking Lean is only for front line workers

The  
Fix



Leadership must be ENGAGED

- Participate as much as possible
- Change the way you speak to teams:
  - Start by asking about:
    - Percent Plan Complete (PPC) trends
    - Countermeasures for variances
    - Lessons Learned



Mistake

# 3

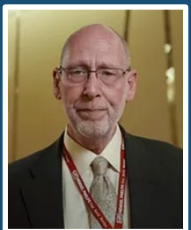


Thinking you already “do Lean”

The  
Fix



- Understand Lean is **not** about throwing-out everything we know about construction
- Know that **every** process can be improved
- Conduct **Regular Trainings** to get (and keep) everyone on the same page



Mistake

# 4



Milestones are not clearly defined

The  
Fix



- Know that common terms have different meanings to different people
- Take the time to clearly state what work **is included** and what **is not included**
- Pay special attention to major milestones which **release work** to others



Mistake

# 5



Durations between Pull Plan Milestones are too large (>3 months)

The  
Fix



- Don't solely focus on contract milestones
- Create and post (make visible) intermediate milestones - Monthly and Weekly
- Practice pull planning smaller phases of work





Mistake

# 6



“Biting off more than you can chew” in the Pull Plan

The  
Fix



- Keep the pull plan focused on **1 phase** of work
- Concurrent phases should **not** be pulled together
- Only invite **related parties**
- Guidelines: **10-12 wks** for new construction, **6-8 wks** for renovations, up to **26 wks** for design



Mistake

# 7



Conducting pull plans just prior to starting work

The  
Fix



- Conduct Pull plans ~**6 weeks** prior to the start of a phase
- Allows for changing the plan if a better idea surfaces



Mistake

# 8



Insufficient preparation for the pull plan

The  
Fix



- Proper notice (2+ weeks) & reminders
- Location: on-site vs off-site vs virtual
- Room set-up: checklist available
- Name Tags are a must!
- Onboarding new members (in advance)



Mistake

# 9



Short-cuts: using the contract schedule, filling out sticky notes in advance

The  
Fix



- Set aside contract schedule & start with blank sheet of paper – forces thinking
- Allow 3 to 4 hours for pulling major phases
- If in-person, spend the 1st ~60 minutes of a pull session laying the groundwork, or...
- Conduct preparatory sessions in advance of the pull session – typically 2 hours



Mistake

# 10



Insufficient groundwork at the start of the pull planning session

The  
Fix



- Introductions, Overview and Session Goals
- **Milestone definition, work breakdown, takt areas, flow of work**
- **Work Sequence** (beginning to end, aka forward)
- Have trades describe the way **they** intend to accomplish their work
- Capture **constraints** and seek **innovation**



Mistake  
# 11



Choosing the wrong format for the pull plan

The  
Fix



Decide between:

- Swim Lanes for trades – not recommended
- Swim Lanes for different areas - OK
- Blank paper, virtual/cloud software
- Time Scale – to include or not to include?



Mistake

# 12

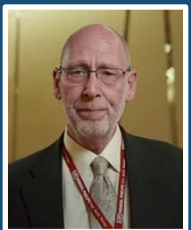


Posting sticky notes randomly

The  
Fix



- Start with the end in mind (milestone completion)
- Follow the request (or trigger) of the downstream activity
- Rule: No one posts any activities until requested by another trade



Mistake  
# 13

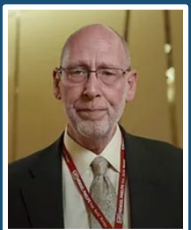


Poor or non-existent follow-up after a pull planning session

The  
Fix



- Capture the plan in scheduling software & distribute for review & comment
- Capture constraints, questions, issues, needs & assign a champion and date needed
- Confirm durations and handoffs with any performers not in attendance





Mistake  
# 14

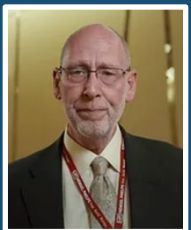


Thinking we are done after the pull plan

The  
Fix



- Start the daily & weekly cadence right away
  - Weekly Work Planning
  - Make-Ready Planning
  - Daily Huddles
- Connect all future planning discussions back to the pull plan (aka, the production plan)
- Pull Planning is **just the starting point!**



Mistake

# 15



Little or No Make-Ready Planning

The  
Fix



- Test: Are constraints being identified 6 weeks in advance?
- Each week, paint the picture of where the project should be in 6 weeks
- Use Plus/Delta to remind performers to bring make-ready constraints to the meeting



Mistake

# 16



Last Planners not listing workable backlog on their WWP's

The  
Fix



- Ask the individuals that didn't list any Workable Backlog, *"Where will you go next week if you get ahead or get stopped?"*
- Encourage production leaders to think beyond the current week



Mistake

# 17



Production Leads not reviewing the WWP prior to the Meeting

The  
Fix



- Have Last Planners submit WWPs in advance
- Review the WWPs prior to the weekly meeting
- Note any questions or non-compliance with the pull plan and discuss at the meeting



Mistake

# 18



Focusing solely on the PPC Score

The  
Fix



- Discuss the major variances from the prior week at the weekly meeting
- Ask the trades what countermeasures were installed to prevent re-occurrence
- Ask 5-Whys? to get to the root cause
- Do not accept 1-Who?



Mistake  
# 19



Being “soft” or giving partial credit when calculating PPC

The  
Fix



- Activities must be **Specific & Measurable**
- Done on the day promised – **Yes or No?**
- “Nos” are not always a bad thing
- Being “tough” in scoring helps sharpen planning skills, which leads to **better reliability & less variation** in the future



Mistake  
# 20



Meetings (weekly or daily) start late or run long

The  
Fix



- Make a point to **always start & end on time**
- Utilize a written **Parking Lot** to prevent side conversations or problem-solving from dragging out the meetings **(2 Minute Rule)**
- Encourage the team to **hold themselves accountable**



Mistake

# 21



Failing to conduct regular onboarding & maintenance trainings

The  
Fix



- **Have a plan** for onboarding when new members join the team
- Have new members join the meeting cycle approx. **2 weeks prior to starting work**
- Assign **responsibility** for onboarding
- Conduct **Intermediate phase trainings**







# Questions & Answers



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