



# HAND-OFF WORK PLANNING

## 1.0 Why

Construction projects traditionally are made of multiple companies contracted individually to one general managing firm. Each company typically comes to the project with independent—and mutually exclusive—goals, which often results in poor coordination, rework and incorrect work.

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Lean/IPD project teams strive to create an environment where the construction process can more closely mirror a production environment. This is accomplished through detailed planning done by those responsible for doing the work. They are encouraged to have clear conversations about their work and specifically how they will hand it off to the follow-on value-adding process. Teams identify and define standard work processes and outcomes—and then improve upon those practices. Using

a Plan-Do-Check-Act PDCA cycle is helpful in this regard and allows for continuous improvement.

The central challenge of Lean/IPD is cultural change. This encompasses how the team thinks about the project, their work, how they behave, how they interact with their fellow team members, manage risk, and how they react to and solve problems. For most team members these behaviors and practices will be different from what they have experienced previously. Most or all of these changes are required to effectively execute hand-off work planning; once learned, they are transferrable to many other contexts of the Lean/IPD work environment. Through transformational Leadership and strong coaching and Facilitation in a Big Room environment, a Lean/IPD team will strive for transparency, one single source of truth, Last Planner® engagement, clear Conditions of Satisfaction, and—most importantly—respect for people and deep, trust-based relationships.

Hand-off work planning can be used immediately to improve the reliability of the work plan for near-term work. It is a practical skill that can be used often throughout the life of the project. Hand-off work planning can be used at least weekly, sometimes daily, or sometimes multiple times per day. It prepares the team to take on the more advanced Lean/IPD concepts like Production System Design.

## 2.0 What

When performing hand-off work planning, project teams do the following.

### Choose a milestone.

The milestone is near-term and has a clear definition. It should be chosen before the meeting is held and communicated in advance to the meeting participants. If this is the first time many in the group have done hand-off work planning, any milestone can be chosen, as long as it is one the participants are familiar with.

### Get the Last Planners® in the room.

A Last Planner® is someone who has direct knowledge of the work that is going to be discussed. He or she either performs that work or supervises those who do.

If last planners are not included—or if there are few last planners in attendance—the project can break down. Project teams must know who to invite, and make every effort to ensure they attend. Attendance in person is key. Last planners® cannot attend via



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phone or virtual meeting. Hand-off work planning is an engaged multi-dimensional fast-moving conversation that is intended to lead to personal commitments and agreements.

**Define the milestone by asking the following questions.**

- What is a milestone?
- How will the team know when the milestone is reached?
- What deliverables must be created for this milestone?

An example of a milestone description that seems clear but is in fact unclear is “building is watertight.” Does this mean that 100% of the building is watertight? Or can it be all of the building except where the man hoist is? Is it the last layer of the

waterproofing or is it the entire skin in addition to the waterproofing elements? Is it when the physical installation of the work is complete or is it when the GC has agreed that it is complete or is it when the inspector has agreed it is complete?

This conversation is not optional. It is critical. It drives the rest of the meeting. It is common—and necessary—to uncover differences, misunderstandings, and disagreements on this subject.

### **Determine the type of work needed to meet the milestone.**

Work forwards (forward pass) or backwards (backward pass). Use sticky notes. It is generally best to work backwards (Pull Plan) from the milestone. However, much can be achieved by working forward to the milestone, then moving backward through the chain.

If team does a backward pass, review the plan by moving forward step-by-step. Rearrange the sticky notes as needed. Repeat until the team agrees the steps of the work are in place and are all connected to the milestone.

When working backward ask:

Are you sure you have no other constraints?

Are you completely released to start work? Look for language patterns like “yes I’m completely released I just need the final spec”. If “final spec” isn’t in the plan, add it.

When working forward ask:

Does this work release other work to start? Sometimes the other work might be on a pathway not leading to your milestone, but revealing it might lead to team review and uncover a hidden pathway to the milestone you are working on.

### **Write the commitments on sticky notes.**

Each person should write his or her own commitment descriptions (promise to perform, Reliable Promising). This increases accountability. There can be resistance to commitments, but teams must commit. It is important to continuous flow of the project.

### **Make sure the commitments are sequenced.**

Draw lines between the boxes. Make sure it is clear how all boxes are connected and there is an arrowhead at one end of each line indicating the order of the commitments.

**Encourage and determine complete descriptions of work, including the name of the person, and the duration of the commitment.**

At the beginning, it may be difficult to write complete descriptions and details can be added later. By the end of the session, all commitments need to be complete and connected to all related commitments.

**Read all of the participant descriptions and consider the following:**

Are the descriptions clear?

What is needed before each commitment can be met?

Is a piece of work missing?

What is needed to release the next commitment to start?

What is needed to allow this commitment to start?

Is a commitment doing more than needed?

Is that other work needed now? If so what follow-on work does it release to start?

Is there a chain of work missing? (Maybe it simply supports a milestone not being planned out right now).

Note: This process can lead naturally to cluster groups being formed to consider unknowns in the hand-off work plan. The team may not have the expertise to resolve the issue that needs study by another group. If an issue is complex or off-topic, add the item to a "parking lot" list to be addressed at another session or by another group.

For the  
Twitter minded:

- #Transparency
- #SingleSourceOfTruth
- #Conditions of Satisfaction
- #ReliablePromising
- #Facilitation
- #Culture
- #ChangingBehavior
- #ScheduleRisk
- #RiskManagement
- #ProductionSystemDesign
- #CriticalConversations
- #HowToListen
- #SmallBatches

## **Make sure commitments are assigned to people, not companies.**

It is a person who will do the work or be responsible for the work and he or she is the point of accountability.

## **Add durations to the commitments.**

Try to limit durations of commitments. Small-batch workflow readily allows for improvement or correction. Challenge any long-duration commitments, especially if the description is short or vague. An ideal maximum duration is five days.

## **Reach consensus on the completed plan.**

Assess the total duration. Determine whether the milestone will be reached in a timely manner.

## **Conduct a Plus/Delta on the meeting.**

Perform execution follow up. Encourage short-cycle corrections and establishment of multiple conduits for communication.

## **Refer to the Last Planner System® for a deeper understanding of how this hand off work planning can be measured to drive improvement.**

Many have found this application to benefit from a coach or project integrator experienced in group facilitation.

## **Other Needs: Supplies/Characteristics of the workspace:**

Big wall or white board

Large sticky notes of many colors (usually one color per company)

Marker pens for connecting the sticky notes

Fine tip sharpies for writing on the sticky notes

Renderings, site plans, site photographs, cardboard models, mechanical layouts, floor plans, as necessary

# HAND-OFF WORK PLANNING



## Quick Reference

<a href="#">Visual Management</a> .....	33
<a href="#">Conditions of Satisfaction</a> .....	133
<a href="#">Production Systems Design</a> .....	173

For additional readings and information, please see the below information.

# CHAPTER 28– HAND OFF WORK PLANNING

## Additional Readings

[5.3 Model Based Estimating for Target Value Design](#)

[BIM Workshop Outline - Sellen](#)