

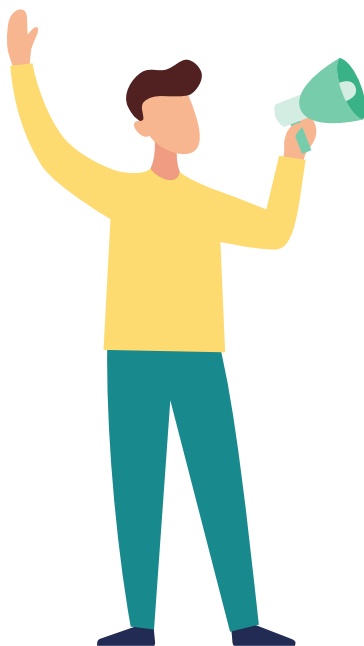
HOW TO BUILD A PULL PLAN

1 ESTABLISH CONDITIONS OF SATISFACTION

TO GET EVERYONE ON THE SAME PAGE ABOUT THE EXPECTATIONS FOR THE PULL PLAN WE CAN DO THE FOLLOWING:

PREPARE THE TEAM:

- YOU CAN PREPARE THE TEAM BY COMMUNICATING THESE KEY THINGS:
 - THE DATE OF THE PULL PLAN WITH AN INVITATION.
 - THE LOCATION OF THE PULL PLAN.
 - THE MILESTONE YOU WILL PULL TO AND THE GENERAL CONDITIONS OF SATISFACTION FOR THE PULL PLAN.
 - THE EXPECTATIONS FOR PREPARATION LIKE RESEARCHING DRAWINGS, PREPARING STICKYS, OR THINKING THROUGH A HOMEWORK SHEET.
- SOME CONTRACTORS LIKE TO HAVE TRADES PRE-FILL-OUT A WORKSHEETS.



GATHER THE TEAM:

- IN THIS STEP YOU WILL GATHER THE PARTICIPANTS, DO A SAFETY BRIEFING TO START, AND INTRODUCE THEM TO THE FOLLOWING:
 - WHERE THE PULL PLAN WILL TAKE PLACE.
 - WHERE THE SUPPLIES ARE.
 - THE CONDITIONS OF SATISFACTION FOR THE PULL PLAN.
 - PREPARATION THAT IS NEEDED FOR THE PULL PLAN TO GO WELL.
 - AN OVERVIEW OF HOW THE PULL PLAN WILL BE RUN.

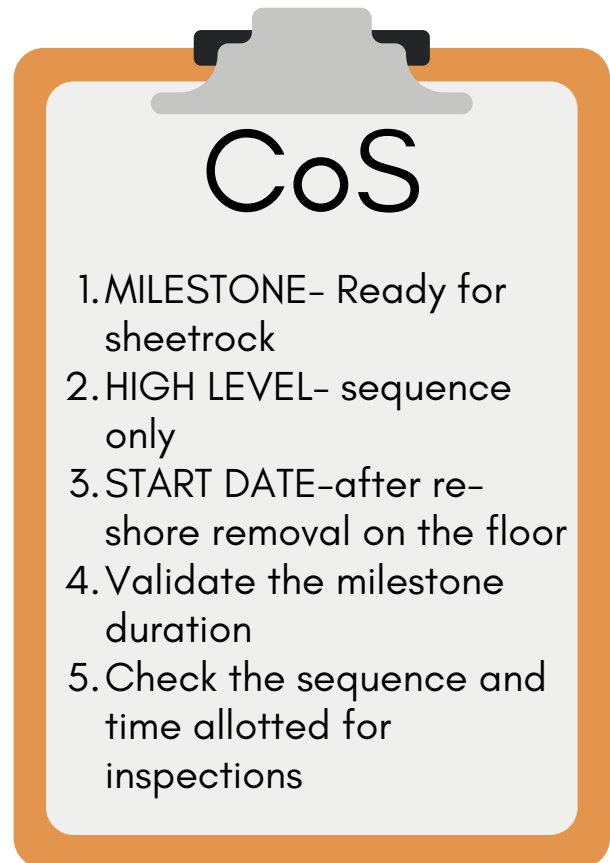
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PROVIDE PREPARATION TIME:

- ONCE THE PARTICIPANTS HAVE BEEN GATHERED, ORIENTED, AND INFORMED, IT IS A GOOD RECOMMENDATION TO GIVE THEM 15-30 MINUTES TO FINISH ALL PREPARATIONS AND GET FULLY BACK IN CONTEXT FOR THE MEETING.

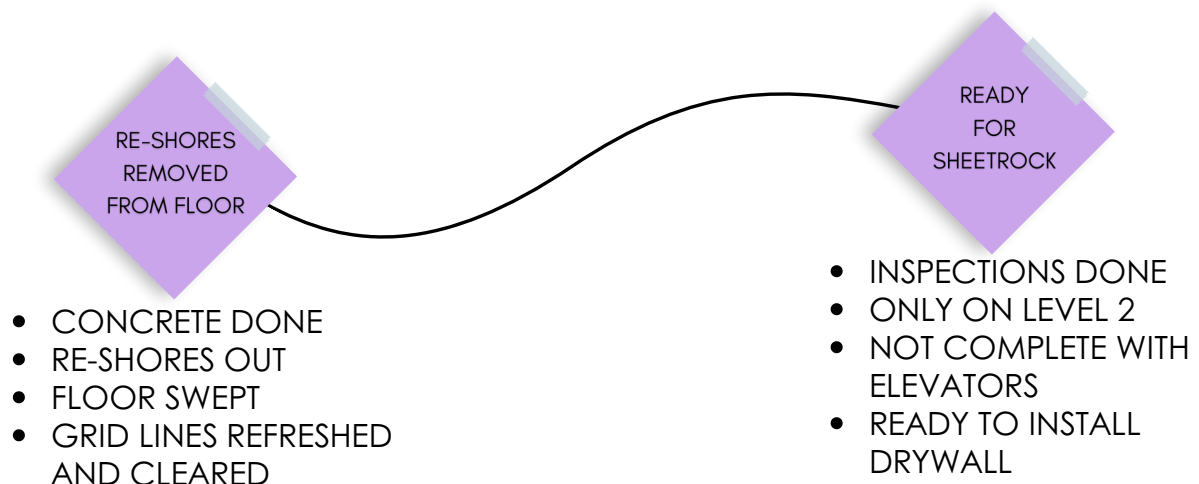
ESTABLISH THE LIST OF CONDITIONS:

- ONCE EVERYONE HAS HAD TIME, YOU WILL INTRODUCE THE **CONDITIONS OF SATISFACTION** AGAIN IF YOU ALREADY HAVE. YOU WILL EXPLAIN WHAT THE PURPOSE OF THE MEETING IS, WHAT THE TEAM WILL DO, AND YOU WILL INTRODUCE THE MILESTONE YOU WILL PULL TO. IT IS RECOMMENDED THAT YOU DESCRIBE THINGS LIKE HOW DETAILED YOU WANT TO BE, KEY ITEMS YOU WANT INCLUDED, AND WHAT SUCCESS WILL LOOK LIKE.



2 DESCRIBE THE START AND END MILESTONES

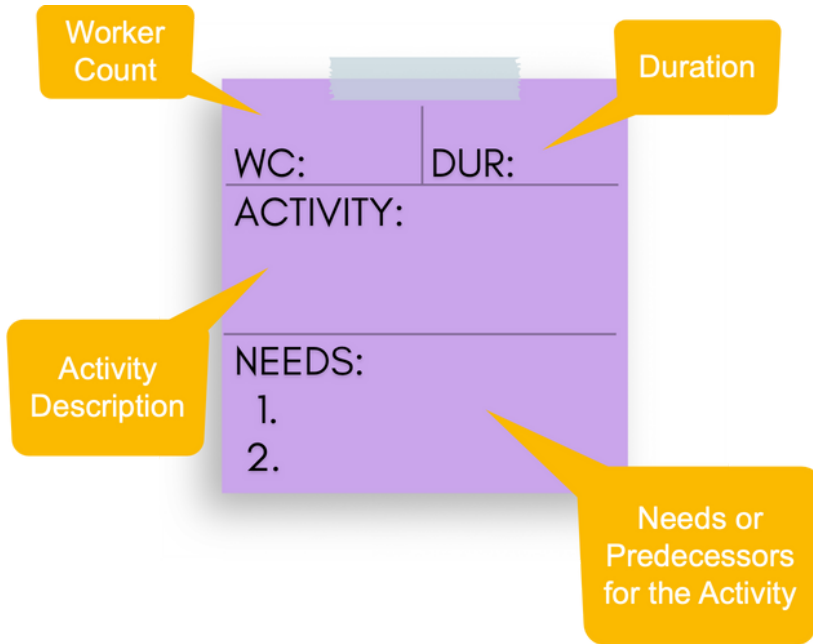
THIS BRINGS THE TEAM CLARITY AS THE TEAM CREATES THEIR TAGS OR STICKYS.



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3 COMMUNICATE THE STICKY FORMAT

IN THIS STEP YOU WILL EXPLAIN HOW THE TAG OR STICKY IS FORMATTED.



4 SELECT STICKY COLORS

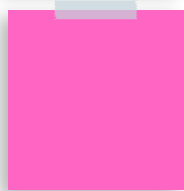
SELECT WHAT COLORS REPRESENT WHICH TRADES.



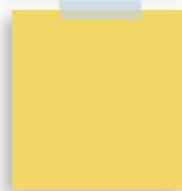
FRAMING &
BACKING



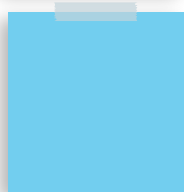
MECHANICAL
PIPING



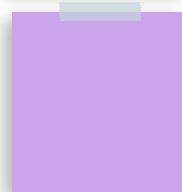
ELECTRICAL



HVAC



PLUMBING

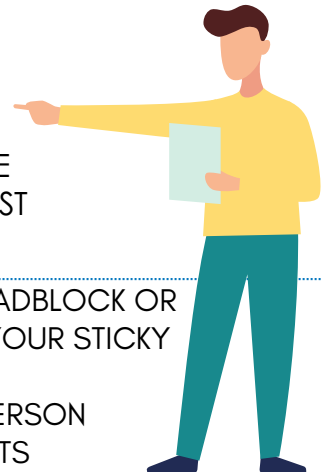


INSULATION

HOW TO BUILD A PULL PLAN

5 ESTABLISH THE RULES

EVERYONE IN YOUR PULL PLAN WILL HAVE A DIFFERENT PERSPECTIVE ON HOW A PULL PLAN SHOULD RUN AND WHAT THE RULES ARE. THE BEST WAY TO DIFFUSE A HARD SITUATION IS TO JUST GET ON THE **SAME PAGE** AND DECIDE ON THE RULES **TOGETHER**.



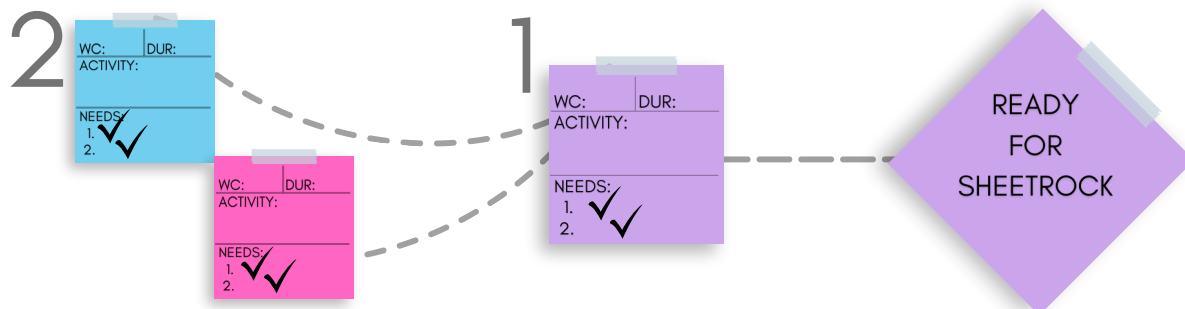
PULL PLAN GUIDELINES:

1. ONE PERSON SPEAK AT A TIME
2. NO TOUCHING OTHER PEOPLE'S STICKYS
3. FOLLOW THE PROCESS:
 - A. START WITH THE LAST ACTIVITY
 - B. THAT PERSON DESCRIBE THEIR ACTIVITY
 - C. THAT PERSON EXPLAIN WHAT THEY NEED
 - D. THAT PERSON ASK FOR OTHER TRADES OR DISCIPLINES TO ADD STICKYS THAT MEET THE NEEDS
 - E. WHEN NEEDS ARE MET, THAT PERSON MAY BACK AWAY OR SIT DOWN
4. IF YOU HAVE A ROADBLOCK OR MILESTONE, TURN YOUR STICKY DIAGONALLY
5. TALK PERSON TO PERSON
6. MAKE COMMITMENTS
7. TRULY COLLABORATE AND LISTEN
8. HAVE THE RIGHT PEOPLE IN THE ROOM - THE PEOPLE DOING THE WORK THAT CAN MAKE THE COMMITMENTS
9. ONCE THE PULL IS DONE, DO A FORWARD PASS TO IDENTIFY CONCURRENT ACTIVITIES AND OPTIMIZE THE SEQUENCE

6 RUN THE PULL PLAN MEETING

ONCE YOU HAVE BUY-IN FOR THE RULES, YOU CAN BEGIN YOUR PULL PLAN WITH THESE STEPS:

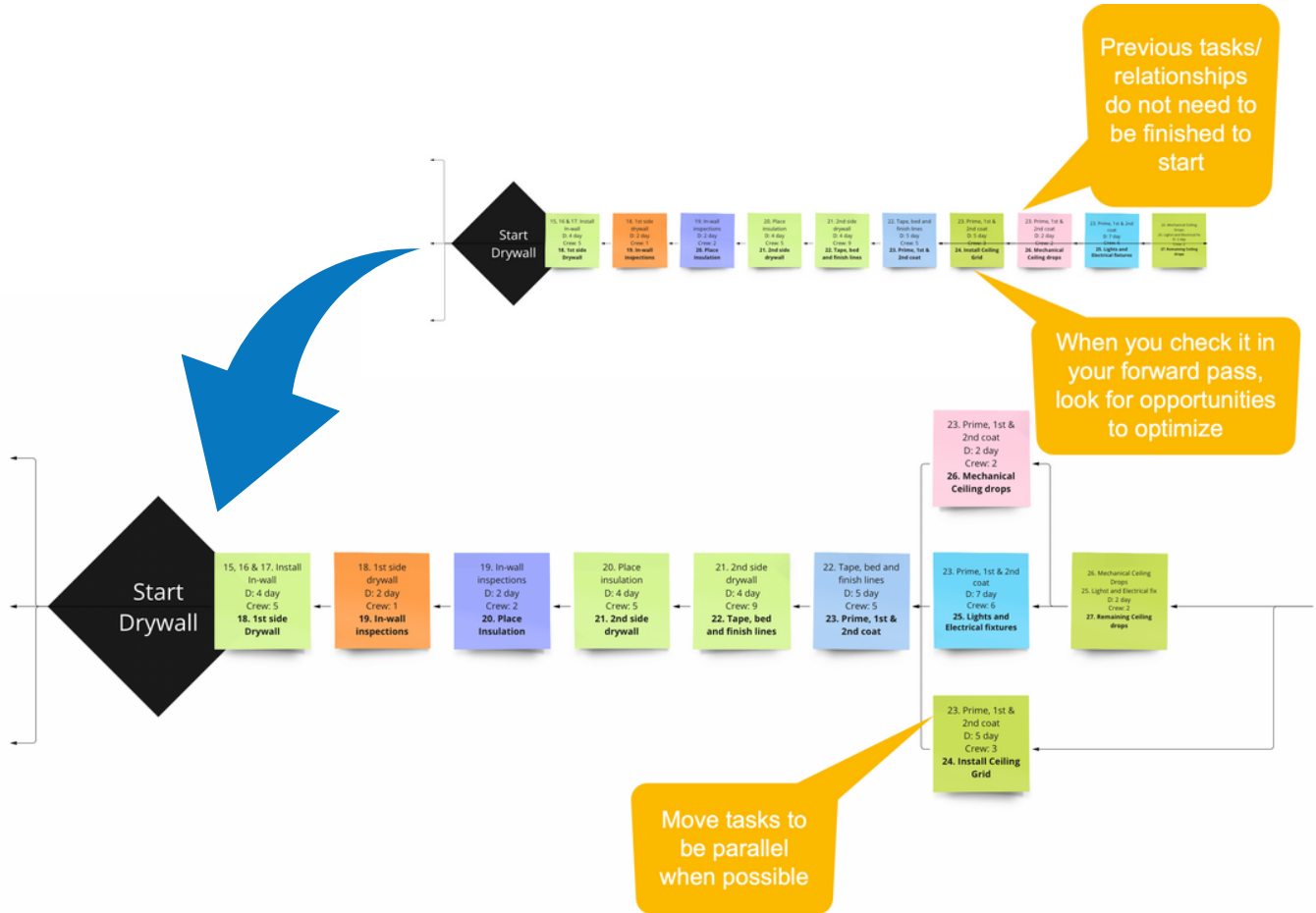
1. THE FACILITATOR INVITES THE COMPANY WITH THE LAST ACTIVITY IN THE SEQUENCE TO PLACE THEIR STICKY NOTE ON THE BOARD. HE OR SHE WILL ANNOUNCE THE ACTIVITY, THE DURATION, THE WORKER COUNT, AND ASK FOR WHAT HE OR SHE NEEDS.
2. THE CONTRACTOR WITH THE ACTIVITY THAT SATISFIES THAT NEED PUTS HIS OR HER STICKY ON THE BOARD AND THE FIRST CONTRACTOR WILL PUT A "CHECK" IN THE BOX NEXT TO IT. THEN THE NEXT NEED IS ASKED FOR. IN THIS WAY THE SEQUENCE WILL MOVE BACKWARD AND SATISFY ALL NEEDS FOR EVERY TASK. WHEN THE SEQUENCE NEEDS ARE ALL SATISFIED, THE PULL PLAN IS COMPLETE.



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7 CHECK THE SEQUENCE WITH A FORWARD PASS

ONCE YOU HAVE EXHAUSTED THE SEQUENCE YOU CAN RUN IT FORWARD WITH THE TRADES TO SEE IF THERE IS ANY WAY TO GAIN ON TIME AND RUN ACTIVITIES PARALLEL.

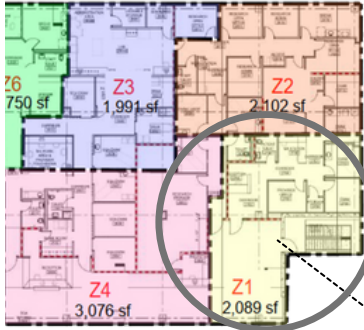


8 BRING THE PULL PLAN INTO THE RIGHT FORMAT

WHEN THE PULL PLAN IS FINISHED YOU CAN PULL IT INTO YOUR CPM SCHEDULE, CREATE TAKT SEQUENCES, OR LEAVE IT IN ITS CURRENT FORMAT FOR TRADES TO FOLLOW. BE SURE TO COMMUNICATE THE RESULTS OF THE TAKT PLAN TO **ALL TRADES** SO THEY KNOW THE PLAN.



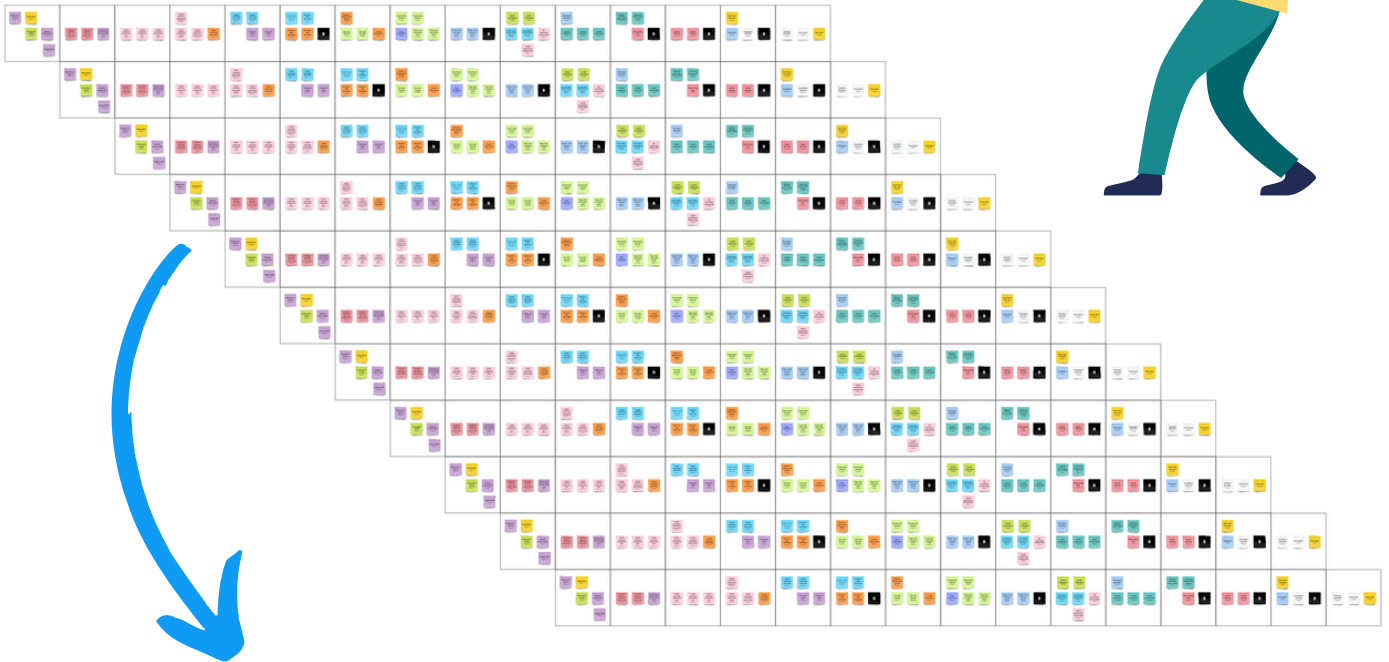
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THE GRAPHICS BELOW SHOW A HELPFUL WAY TO LOOK AT PULL PLANS. WHEN A PULL PLAN IS DONE BY ZONE IT CAN THEN BE PACKAGED AND CREATE YOUR TAKT PLAN. YOU SHOULDN'T FIND A PULL PLAN BY ITSELF VERY OFTEN.

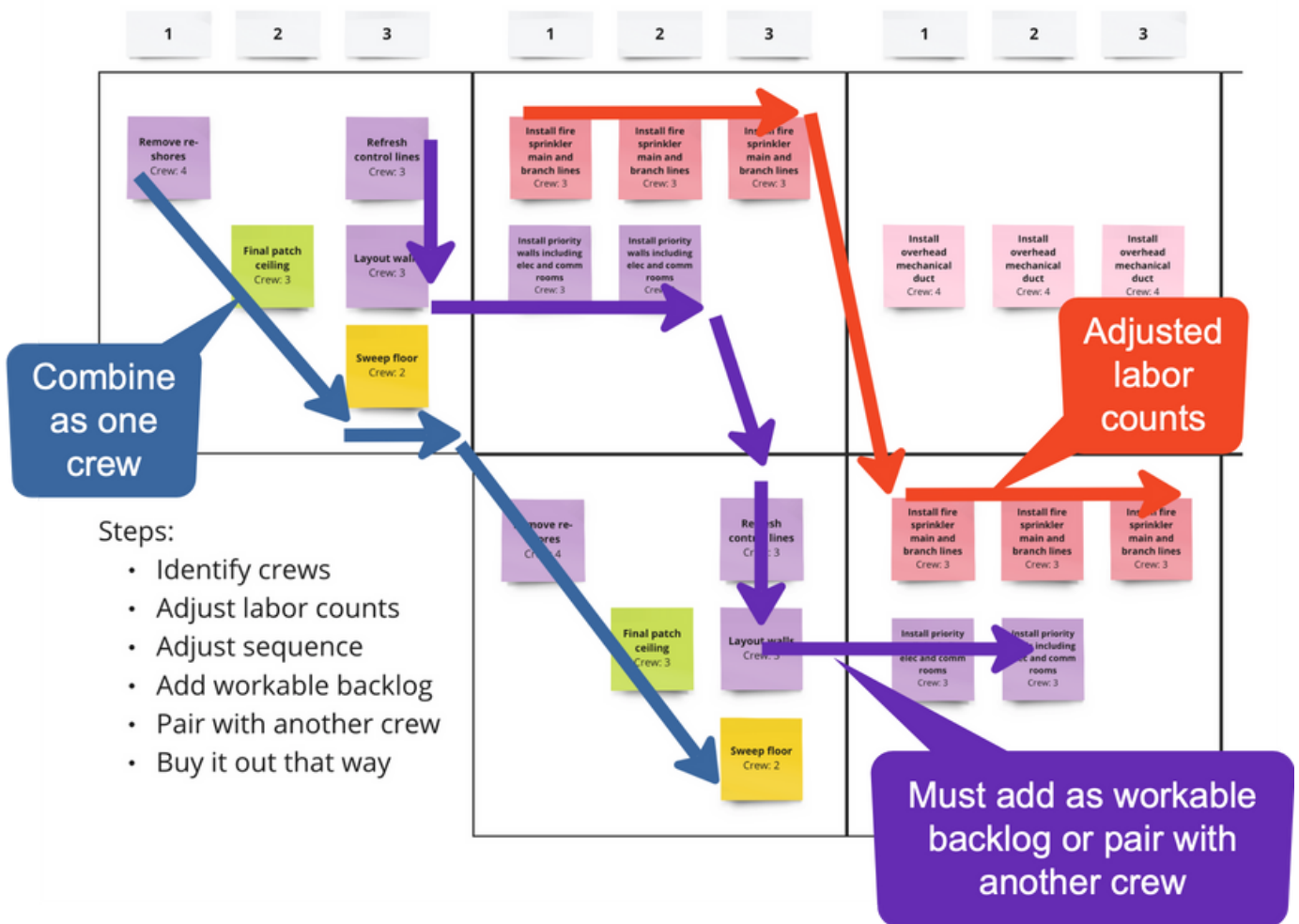


PULL PLANS SHOULD REPRESENT A SINGLE ZONE AND BE STACKED ON TOP OF EACH OTHER.



HOW TO BUILD A PULL PLAN

THE KEY HERE IS TO NOT ONLY ANALYZE THE WORKFLOW **WITHIN** THE PULL PLAN SEQUENCE, BUT ALSO ANALYZE IT FROM **ZONE TO ZONE** TO ENSURE YOU HAVE TRADE FLOW. ONCE YOU HAVE YOUR SEQUENCE FOR THE MACRO OR THE PULL PLAN IN THE NORM LEVEL, YOU WILL STACK THE PACKAGED SEQUENCE ON TOP OF EACH OTHER AND MAKE SURE THE TRADES CAN FLOW FROM ONE ZONE TO ANOTHER IN ONE PROCESS FLOW.



VERIFY THE FOLLOWING:

1. MAKE SURE THE WORK IS BOUGHT OUT PROPERLY AS CREWS.
2. ADJUST LABOR COUNTS IN CREWS TO LEVEL WORK.
3. ADJUST THE SEQUENCE IF NEEDED TO GET FLOW.
4. ADD WORKABLE BACKLOG BETWEEN GAPS IS NECESSARY.
5. PAIR ACTIVITIES WITH OTHER CREWS IF NEEDED.
6. IF YOU CANNOT GET GOOD TRADE FLOW, THEN AT LEAST BE HONEST AND BUY IT OUT THAT WAY.