**Lean in Design Build**

Cross-mapping between Design-Build Done Right and Lean Practices

I. Procuring Design-Build Services

**D-B BP I.1.b:** Owners should create an organization that shares the importance of setting expectations and fostering a collaborative relationship among all members of the project team.  
**Lean Practices:** Values definition, values alignment, Conditions of Satisfaction, Big Room

**D-B BP I.1.c:** Owners should identify and involve key project stakeholders at the early stages of project planning, as stakeholder goals, expectations, challenges, constraints and priorities should guide all project planning and procurement activities, including the determination and implementation of design excellence and sustainability goals.  
**Lean Practices:** MacLeamy Curve, Value definition, conditions of satisfaction, target value design

**D-B BP I.2.b:** Owners should use a procurement process that encourages the early participation of key trade contractors.  
**Lean Practices:** MacLeamy Curve, TVD

**D-B BP I.2.c:** Owners should develop their design-build procurement with the goal of minimizing the prescriptive requirements and maximizing the use of performance-based requirements, which will allow the design-build team to meet or exceed the owner’s needs through innovation and creativity.  
**Lean Practices:** TVD, set-based design, pre-fabrication

**D-B BP I.2.d:** Owners should develop realistic project budgets and provide clarity about their budgets.  
**Lean Practices:** TVD

**D-B BP I.2.e:** Owners should consider the level of effort required by proposers to develop responsive proposals and should limit the deliverables to only those needed to differentiate among proposers during the selection process.  
**Lean Practice:** eliminating waste, respect for people

**D-B BP I.2.f:** Owners who require project-specific technical submittals for evaluating and selecting the design-builder should: (a) use a 2-phase procurement process; and (b) limit the requirement for such submittals to the second phase where the list of proposers has been reduced.  
**Lean Practice:** eliminating waste, respect for people

II. Contracting for Design-Build Services

**D-B BP II.1.a:** Contracting parties should proactively and cooperatively identify significant project-specific risks and clearly identify in the contract how such risks will be handled.  
**Lean Practice:** Constraint Log
D-B BP II.1.b: Contracts should reasonably allocate risks to the party that is best capable of addressing and mitigating the risk.
Lean Practice: collaboration

D-B BP II.1.d: Contracts should encourage, rather than hinder, communications among project stakeholders.
Lean Practices: Alignment Partnering, core group, transparency, collaboration

D-B BP II.2.a: Owners should, consistent with their overall procurement strategy, evaluate and use appropriate contractual incentives that facilitate alignment of the performance of design-build teams with their owner’s project goals.
Lean Practices: aligning commercial terms with desired behaviors

III. Executing the Delivery of Design-Build Projects
D-B BP III.1.a: All members of the D-B team must understand that the project’s success is dependent on the ability of the team members to work collaboratively and to trust that each member is committed to working in the best interests of the project.
Lean Practices: Values Definition, Values alignment, Conditions of Satisfaction, onboarding, Last Planner®

D_B BP III.1.b: personalities are well-suited to the collaborative nature of the D-B process.
Lean Practice: team self-selection, on-boarding, off-boarding

D-B BP III.1.c: All project teams should have senior leadership committed to the success of their projects...
Lean Practice: core group executive team

D-B BP III.2.a: Owners and the appropriate members of the D-B team should co-locate when justified by project characteristics.
Lean Practice: Big Room

D-B BP III.2.b: D-B should strive to have design and construction teams working in the same place as often as possible.
Lean Practices: Big Room, collaboration

D-B BP III.2.c: Owner and D-B should ensure that the administrative processes established for project execution are appropriate, well-understood and expeditious.
Lean Practices: Standard work, visual workplace with KPI, Last Planner®, metrics-based process mapping, continuous improvement

D-B BP III.3.a: Owner and D-B should develop and use a structured partnering process.
Lean Practices: Alignment Partnering, on-boarding, core group concept
D-B BP III.3.b: Owner and D-B should create an executive leadership group (including builder, designer or record and key trade contractors) to meet regularly, monitor the project’s execution and facilitate the understanding and achievement of the parties’ mutual goals.
Lean Practices: Big Room, Core Team, Dashboards, transparency

D-B BP III.3.c: Owner and D-B should develop processes that enable key stakeholders (third parties) to interface directly with D-B on significant elements of the work.
Lean Practices: Big Room, Constraints Analysis, Last Planner®

D-B BP III.3.d: Owner and D-B should endorse and liberally use techniques that effectively integrate design and construction activities and take steps to continue these processes through the duration of the project.
Lean Practices: Big Room, Last Planner®, visual workplace

D-B BP III.3.e: The owner should be fully engaged and prepare to make timely decisions...
Lean Practices: Big Room, Last Planner®, core group

D-B BP III.3.f: D-B should clearly, thoroughly and expeditiously advise owner about any issues that might impact contract price or schedule to enable the owner to make an informed decision as to how to address such issues.
Lean Practices: Constraint log, Last Planner®, daily huddles

D-B BP III.4.a: The owner and D-B should acknowledge the significant level of effort required to manage the development and review of the design and consequently (a) dedicate sufficient resources to foster a collaborative environment for this work; and (b) mutually develop a realistic design development plan that efficiently engages the owner and key members of the D-B team in purposeful meetings.
Lean Practices: Last Planner®, Big Room

D-B BP III.4.b: The owner and D-B should agree upon clear, realistic and expeditious submittal and review/approval processes that are in harmony with the parties’ schedule and other project-specific goals.
Lean Practices: Last Planner®, Big Room

D-B BP III.4.c: The D-B should ensure that design advancement and changes to contract documents are clearly, thoroughly and contemporaneously documented and that there is a clear understanding as to when the owner is integrated into the decision-making process and notified of changes.
Lean Practices: Big Room, Last Planner®
**D-B BP III.4.d:** The D-B team should *(a)* establish a trend system early in the design development process to identify, track and evaluate any potential changes before they adversely impact project cost or schedule, *(b)* clearly, thoroughly, and contemporaneously communicate to the owner the information derived from the trend system, and *(c)* maintain the trend system throughout the construction process until it is no longer needed.

**Lean Practices:** Last Planner®, TVD, set-based design, design opportunities log

**Learning Objectives**

1. Understand fundamental concepts of Lean design and construction including identification of waste, definition of value and importance of reliable and predictable flow on project outcomes.
2. Learn how Lean is not only for IPD projects, but is particularly well-suited to use in Design-Build which accounts for 40% of non-residential projects.
3. Understand the fundamentals behind Design-Build done right as recommended by DBIA.
4. Learn how Lean reinforces Design-Build done right through an understanding of which Lean practices and tools align well with the objectives of Design-Build done right.