What Contractors and Subcontractors Need to Know About Integrated Project Delivery

AMERICAN SUBCONTRACTOR ASSOCIATION

APRIL 14, 2020

KEVIN G. AMADIO

KAPLIN STEWART

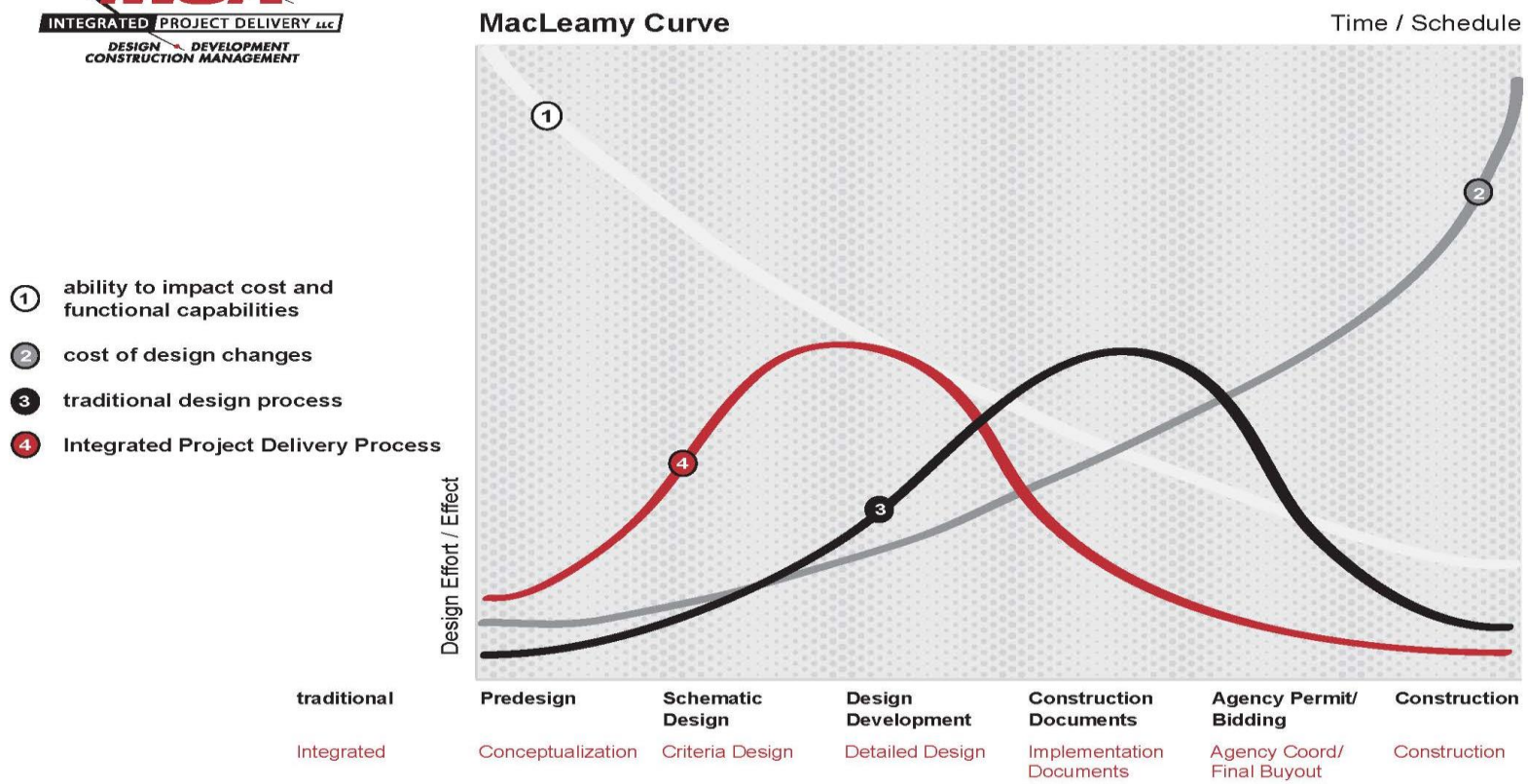
BLUE BELL, PA

610.941-2533

The “Case” for IPD

- How we “do it today: ” DESIGN → BID → BUILD
  - BLS Study: construction, alone, suffers decreasing efficiency 1964 – 2000
  - 30% of construction projects fail to achieve time, budget goals
  - 92% of owners report that “construction documents” were not buildable
  - 37% of construction materials end up “wasted”
- The “results” are not good:
  - Design effort ***wasted***
  - ***Padded*** contractor and subcontractor pricing
  - ***Over Design*** by architects
  - ***Change Orders*** inevitable
  - ***Adversarial*** project relationships

The MacLeamy Curve



Introduced in the Construction Users Roundtable's "Collaboration, Integrated Information, and the Project Lifecycle in Building Design and Construction and Operation" (WP-1202, August, 2004)", the "MacLeamy Curve" illustrates the advantages of Integrated Project Delivery.

Fundamental Principles

- Origins? The BP experience with “Alliancing”
- A commitment to “core principles:”
  - Team with high level of trust and respect
  - Re-orientation of “rewards” – what’s best for the project?
  - Decisions made collaboratively
  - Early identification of key participants
  - Early identification of project goals
  - Intensified, early design effort
  - Transparency throughout
  - 21st century technologies (BIM and PMIS)

Is IPD all that new?

- But, you say:
  - "We have pre-construction services"
  - "We have GMP contracting, with early release packages"
  - "We have partnering"
  - "We have CAD drawings"
  - "We share savings"
- What's missing? A SINGLE AGREEMENT
  - Multiple contracts (Owner-CM and Owner-AE) = "disincentives"
  - The IPD Agreement…the next level of collaboration

Making the Choice

- Organizational Considerations
  - Not for the passive owner
  - Suited for large, complex construction projects
  - Be prepared for intense, early design effort
  - Organizational Support
  - Confidence and trust in the IPD team members
  - Owner staff trained in principles and technology
- Legal Considerations
  - Uncharted appellate territory
  - Public sector limitations; lender and finance limitations

Key IPD Agreement Provisions

- Management Structure
- Compensation
- Target Cost
- Project Goals
- Dispute Resolution
- Changes
- Technology
- Risk Management

Management Structure

- Multi-Layered
- "Executive" Level
  - Senior team leaders, Owner, A/E, key trades
  - Unanimous decision making
  - Owner breaks all ties, subject to ADR
- "Implementation" Level
  - Day to Day Management
  - Key AE Consultants and CM Subs
  - Sub-Implementation Teams
  - Adopt last planner concepts from lean construction

Compensation Structure

- The IPD “Bargain”
  - Owner - pays “reimbursable cost” including agreed “overhead”
  - CM / AE and key trades - “at risk” for recovery of profit
  - Design / construction team can’t lose money but may not make any
- The “Profit Pool” Agreement
  - Establishing a profit pool – overruns come out of profit pool
  - Impact of Project Goals
  - Example: Project Cost less than, equal to, or greater than target
- Other “incentive” compensation

Target Cost

- "Designing to a Detailed Estimate" vs. "Estimating a Detailed Design"
  - Target Value Design – a lean construction concept incorporated into IPD
- Developing a Target Cost during initial design
- Agreement on a Target Cost amendment
- Refinement at 100% construction documents
- CD's/Shop Drawings complete prior to commencement

Changes

- The “goal”: LIMITED potential for change orders
  - “Constructability” issues …GONE
  - “Coordination” issues…GONE
- Some notable exceptions:
  - Owner initiated scope changes
  - Owner initiated schedule changes
  - Regulatory changes
  - Unforeseen conditions, unless addressed in pre-con

Disputes

- Waiver of Claims
- Multi-layered dispute resolution
  - Executive Committee
  - Dispute Review Committee
  - Retained Project Neutral
  - Outside mediator
  - Arbitration
  - Litigation

Technology

- Building Information Modeling (BIM)
  - What is BIM?
  - Why is it important?
  - BIM capable team
  - BIM management
- Project Management Information System (PMIS)
- The “Big Room” – co-location space

Risk Management

- Protecting the Profit Pool
- Traditional Risk Management devices remain relevant
  - CCIP and OCIP programs
  - Sub default insurance or bonding
  - Project specific professional liability insurance
    - rectification coverage
  - Builders' Risk insurance

Goals

- The obvious:
  - Beating the Target Cost
  - Beating the Project Schedule
- LEED
- Energy / Sustainability
- Quality of Work
- Safety
- Labor Productivity
- Metrics and Timing