

Lean Construction Institute

Building Knowledge in Design and Construction

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Course Name: Using Contract Incentives to Improve Project Optimization and Aligning Design-Build with Lean Project Delivery

Course Number – 20121012AM2

Course Speakers: Will Lichtig, Joel Darrington, Robynne Parkinson

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Course Description

Three key takeaways:

- Intrinsic motivation is critical to a high performing project team
 - Traditional construction compensation approaches get in the way of intrinsic motivation
 - Contract incentives can and should be structured to be compatible with intrinsic motivation and improve project optimization
1. The attendees will learn how the design-build delivery method fosters and encourages lean construction practices.
 2. The session will examine the DBIA contract documents, specifically the Owner/Design-Builder and the Teaming Agreement, and the efforts taken to make them consistent with lean construction practices.
 3. The speaker will discuss how to increase communication between the design-build team and the owner.
The design management process set forth in the prime contract allows the parties to collaborate and communicate.
 - The business terms in the prime contract are flexible and allow for shared risk/reward and other incentive based contracting tools.
 - The teaming agreement promotes communication and exchange of information.
 - The agreements are flexible and allow the parties to develop specific protocols and legal requirements for communication and collaboration, such as co-location, a management committee, and information exchange.

Learning Objectives

At the end of the this course, participants will be able to:

- 1) Understand how Lean Project Delivery and commercial terms support and align
- 2) Understand the science of human motivation and how it relates to LPD performance and incentive programs
- 3) Understand how to identify key performance metrics for incentive plans that will promote rater than defeat motivation
- 4) Understand how to integrate LPD methods and practices within the DBIA document family.



Using Contract Incentives to Improve Project Optimization

Presenter: Joel W. Darrington, Attorney at Hanson Bridgett
Friday, October 12, 2012

2012 LCI Annual Congress, Arlington, Virginia

Back story



Traditional Compensation Systems Get in the Way of Project-Optimized Behavior

“Every contract type will influence contractor decision-making and behavior. Firm, fixed-price or lump –sum contracts provide a very strong incentive for contractors to control costs, a behavior that on the surface appears highly desirable. The behavior becomes undesirable when cost avoidance begins to affect performance. . . . [T]his acquisition strategy – a selection based on low price with a resulting firm, fixed-price contract that includes design specs – is common in construction, as are schedule and cost growth, owner dissatisfaction, claims and lawsuits.” – Diana Hoag & Nancy Gunderson

[Design-Build DATELINE – February 2005]



Intrinsic Motivation



Extrinsic Motivation



So what?

- Research in economics and psychology increasingly shows that non-economic factors play a key role in job performance
- Some key non-economic motives that are implicated by paid work are:
 - Desire for fairness and to reciprocate
 - Desire for autonomy/self-determination
 - Desire to work for a valued purpose

Intrinsic Motivation Adds Value

- Complex, long-term jobs require the worker to voluntarily do things to advance the employer's interests that are not specifically detailed in the contract
- This can be encouraged by performance incentives or by intrinsic motivation
- Quantitative performance incentives generally only work when the benefits outweigh the costs
- However, a worker may go the extra mile out of intrinsic motivation

 **WARNING**

The danger: Crowding Out

- Social science has determined that performance incentives may “crowd out” intrinsic motivation
- Performance incentives can shape expectations, killing the desire to do it “for free” anymore
- May only get one shot at getting the contract right with a team

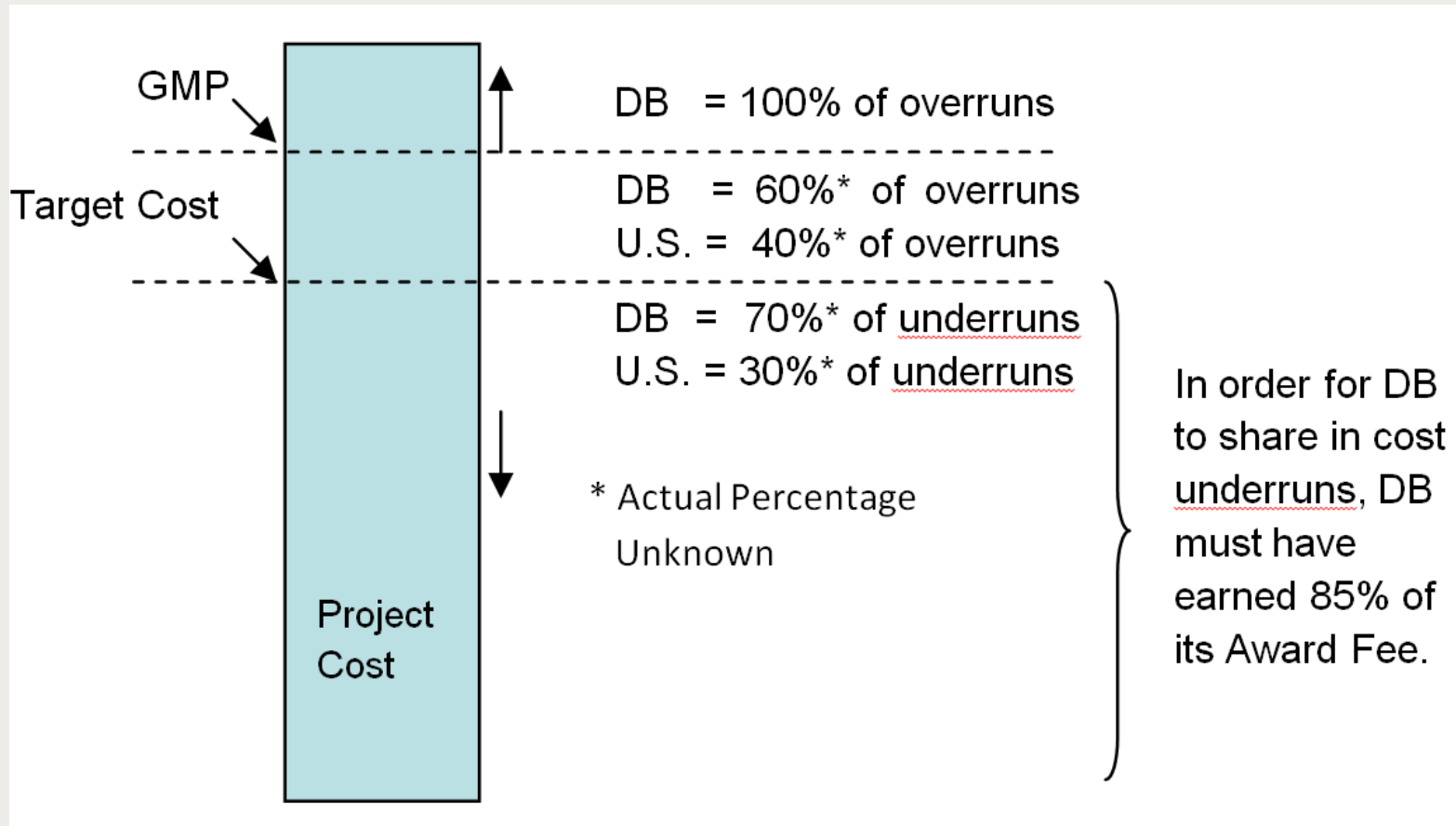
What does this have to do with Lean Construction?

- Relational contracts best support Lean Project Delivery
- Since relational contracts do not spell out exactly what the team is going to design and build from the outset, they depend heavily on team members acting in the interests of the entire project rather than just for their own profit
- Successful relationships and high performance teams depend on intrinsic motivation

How Contract Incentives Can Support Intrinsic Motivation

- Have team members participate in setting performance goals with the owner
- Structure incentives that are trust-based, not output-based
- Leverage “loss framing”, but carefully

Pentagon Renovation (PenRen) Incentive Plan



How Contract Incentives Can Support Intrinsic Motivation (cont.)

- Regular in-person communication about performance
- Don't overprescribe means & methods – make players responsible for how they perform
- Acknowledge importance of team members' intrinsic motivations & help them feel a greater purpose
- Implement incentive determinations fairly
- Be flexible – incentive programs should not be exempt from continuous improvement

WARNING

Warning #2

- Easy for people to get excited about the possibilities of incentives
- Incentives are not the solution to all problems
- Will always be a way to misuse any type of incentive program
- More important to select the right team members and delivery method
- Since every contract has incentives, the goal is to intentionally put incentives in place that will support Lean behavior, not get in its way
- For more detail and citations, see my paper “Motivation and Incentives in Relational Contracts,” available on HB’s website



Thank you.

Additional information on Integrated Project Delivery and associated topics can be found at Hanson Bridgett's IPD/BIM Resources webpage:

<http://www.hansonbridgett.com/Practices-Industries/construction/ipd-bim.aspx>



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This concludes The American Institute of Architects
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