FINDING THE RIGHT APPROACH: AN IPD ROUNDDUP WITH THE STAKEHOLDERS OF AN ACTIVE, COMPLEX HEALTHCARE PROJECT

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PROJECT TEAM

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**PROJECT HISTORY**

**Ph 1:** 630,000 SF, Guaranteed Maximum Price (GMP)
- Traditional Delivery
  - Emergency Department

**Ph 2:** 80,000 SF, GMP during Design Development
- Target Value Design (TVD) started and majority of subcontractors on board during Design Development.

**Ph 3:** 92,000 SF, Integrated Project Delivery (IPD)
- 3 Inpatient Floors and Inpatient Pharmacy
- Target Value Design (TVD) started and majority of subcontractors on board during Design Development.
1. Maintain quality with cost effective alternatives
2. Incorporate lessons learned
3. Reduce construction phase changes
4. Validate successful design decisions early
5. Make decisions as a mutually invested team.
6. Set ambitious but realistic target value goals
7. Streamline the design and documentation process
1. Sub-contractor Design Assist
2. Drawing Handoffs to Sub-contractors
3. Co-location Meetings
4. Teaming and Timing Strategies
5. Sub-contractor Pricing During Design
6. Target Value Design (TVD) vs. Value Engineering (VE)
Cost Management Process

Old Practice:
Estimate / Value Engineer at each Design Milestone.

TVD:
Constant Cost Monitoring and Continuous Estimating, Provides Clear Budget to Adhere To.
MILLWORK PRE-CONSTRUCTION PROCESS

1. Interview
2. Sub-contractor Chosen

1. Material Substitutions
2. Detail Alternatives
3. Mockups
4. Preliminary Shop Drawings

Ongoing Pricing

Target Value Pricing Confirmation

Shop Drawings
Substituted plastic laminate panels with 3 mm edging in lieu of thermoform panels

Designed Modular headwall system that allowed savings from plumbing, electrical and millwork subcontractors

Headwall panels dimensioned to maximize plastic laminate yield
Substituted plastic laminate in lieu of resin panels.

Used plastic laminate versus solid surface at non-wet counter location.

Used drywall rather than plastic laminate panels at soffit.

Included melamine as an alternative material to plastic laminate at wardrobe interiors and introduced a different wardrobe pull.
CORRIDORS

Fiber Reinforced Laminate with digital printed art instead of resin art panel.

Pre-manufactured handrail system vs. a custom stainless steel / thermoformed handrail system

Used chemetal in lieu SST at baseboard throughout project
NURSE STATION

Access Panels on Inside Only

Plastic laminate used rather than solid surface

Pre-manufactured aluminum corner guard used instead of custom stainless steel detail
MILLWORK Value - RESULTS

Schematic Design Quote

Cost savings per DD (IPD)

CD Quote

$2,787,750

($1,287,750)

$1,500,000 =

46% Savings
1. End of September – 93% complete

2. Pharmacy pulled in the schedule to open 3 months ahead of total project

3. Patient Room floors pulled 1 month ahead of project deadline

4. Cost and Value Adds
**Target Value Design**

<table>
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<tr>
<th>Category</th>
<th>Original Estimate July 2013</th>
<th>IPD Contract June 2014</th>
<th>Goal at end of Construction February 2016</th>
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Comparison:
- **Original Estimate July 2013:** $37.4 M
- **IPD Contract June 2014:** $33.78 M
- **Goal at end of Construction February 2016:** $33.3 M
Thank You!
IPD Approach: Perspectives to Date

• Owner – “It’s rare to get to do your best project twice while improving on it the second time. Baystate Health continues to enthusiastically embrace the IPD Approach. The process forged a team that worked together to create innovative, cost effective healthcare design that’s built to last and not just settle for ‘more of the same.”

• Architect – “The IPD approach and specifically the design assist process involving millwork was a great learning experience where all groups gave input on materials, products, and details to come up with the most cost effective design that did not sacrifice the design aesthetic or lasting quality of the millwork.”
IPD Approach: Perspectives to Date

• Contractor – “Working on this project has allowed my team to truly integrate at multiple levels with Baystate and SBA, so much that it has shattered what I thought it meant to collaborate in the past. Understanding the hospital and design teams’ mission statements early in the process has allowed me to appreciate our commons goals more thoroughly, and ensure all parties are seeking to add value at every step in the entire process.”

• Sub-contractor – “The IPD approach allows the manufacturer (sub-contractor) to share it's expertise in efficient (millwork) detailing and material use, avoiding unnecessary cost. Whereas conventional bidding requires quoting per drawings and specifications often prohibiting bidders from submitting proposals based on best value.”