

THE LATEST THINKING  
**PROJECT  
DELIVERY  
STRATEGIES**  
FOR HEALTHCARE BUILDINGS

RESEARCH PARTNERS OF  
THE RICE UNIVERSITY BUILDING INSTITUTE





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Relevant research demands that industry and academic leaders integrate their efforts. Therefore, we have invited a small collection of nationally recognized industry experts to offer their latest thoughts on the broad topic of “project delivery strategies for healthcare facilities”.

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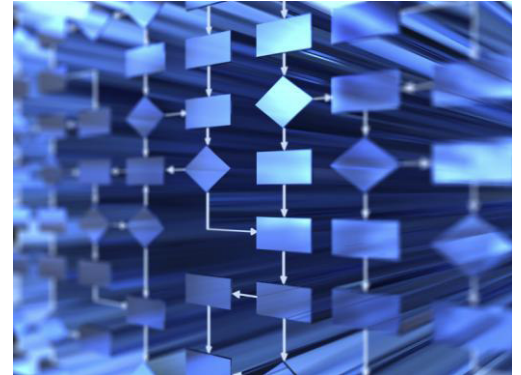
This publication is one element of our ongoing research.

## **ALTERNATIVE PROJECT DELIVERY STRATEGIES HEALTHCARE BUILDINGS**

The project delivery processes used to create new healthcare facilities today are dominated by a collection of specialists and experts whose efforts are often unevenly coordinated. This complexity has left us with systems that take too long, cost too much, and often fail respond to the owner's needs.

The requirement for process improvement is widely recognized, but there are numerous barriers to easy, convenient solutions.

The Rice University Building Institute has brought together a broadly interdisciplinary group of industry and academic leaders to attack this issue. This book is a collection of their current thinking.



**JOE M. POWELL**

EXECUTIVE DIRECTOR

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HOUSTON

2007

## **THE RICE UNIVERSITY BUILDING INSTITUTE AN INTERDISCIPLINARY COLLABORATION OF INDUSTRY, COMMUNITY, AND ACADEMIC LEADERS**

The modern process of creating the built environment has become so complex that needed improvements and innovations lag far behind the growing challenges. Clearly, innovative approaches will be required to reintegrate what has become a fragmented process. This won't happen without the involvement of industry leaders from all appropriate constituencies.

The Rice Building Institute, a University / Industry partnership, provides the requisite forum in which this interdisciplinary search for innovation can thrive.

The Institute has four operational centers:

- **Research**                      Define new insights
- **Executive Education**      Improve performance
- **Publishing**                    Disseminate the latest findings
- **Symposia**                      Host interactive exploration

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*Rice University has a distinguished track record in establishing and operating interdisciplinary collaborations in teaching and research. The University currently is home to over 40 research centers, institutes, and consortia.*

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# THE COST

OF



# ESCALATION

BY NISAN GERTZ  
JONES LANG LASALLE

Over the last three years, construction costs in the United States have escalated over 25%. While that rate of escalation has slowed, it is still having a significant effect on project planning and implementation. Major construction initiatives planned today will cost one and a half times their equal did in 2005.

As an example, let us look at a patient tower with a diagnostic base. This is a common project in aging facilities seeking to upgrade their most critically outdated areas. At completion in 2006, this project cost an average \$70mm in an urban metropolitan US city (costs vary by location and project

particulars). If planning begins in FY 2007, construction costs for the same building must be budgeted at \$105mm. For every month of schedule acceleration (i.e. overall schedule reduction of one month), the institution can save over a half million dollars in escalation costs (not including general conditions savings).

## SCOPE DEFINITION AND CONTROL

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As speed becomes a strong cost driver, the greatest single factor to budget overruns remains scope increases. Scope expansion is commonly due to misidentified or underestimated infrastructure requirements. During early planning stages, a lack of expertise often leads to inaccurate budgeting assumptions. These are intended as placeholders but oftentimes are carried well into the project development. It is only after the budget is approved that the proper studies are completed and true costs are identified.

An additional challenge to budget control is scope creep. This tends to plague a project in a slow and unnoticeable manner. An additional sink or an upgrade to hardware never seems to be of significant cost. However, these minor additions are the most challenging to control throughout the project and require the most diligence.

The simplest means of control is addressing these issues at an early planning stage and clearly setting the standards and parameters which meet user and client expectations.

## A CHANGED APPROACH TO PROGRAM MANAGEMENT

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Time spent planning, setting accurate scope, and performing early investigations are costing healthcare institutions real money. On the other hand, every planning dollar spent has a 10,000% (100X) return on investment (i.e. one dollar in investigations can save over \$100 in change orders). Accurately identifying the true extent of a project, validating the many assumptions through proven data and managing that scope through completion are integral to controlling the budget and final project cost. Only through a complete and intimate knowledge of the true project parameters can you confidently proceed through

funding approvals, procurement and construction.

The simplest way to save money is through efficient program management from project inception through completion. How can a lengthy and integral process be shortened without sacrificing quality? How can extensive investigations and studies be performed to assure reasonable risk mitigation? Over the past few years, industry leaders such as Jones Lang LaSalle and Kurt Salmon and Associates have developed a new strategic approach to program management which achieves these objectives. This unique method is called the *Integrated Facility Development Approach (IFDA)*.

The traditional program management process assembles a team of professionals over an extended period of time in a linear fashion. As services and findings are completed by one

professional, the institution procures the services of the next consultant to “pick-up” where the previous one “leaves-off”. This method brings risk of lost time, lost or undiscovered information and increased cost as one set of professionals “hands-off” to the next. In contrast, the IFDA amasses an expanded project team on an on-call basis from the start of the project discussions. This avails the institution of expert input on an as-needed, timely and less expensive basis. Additionally, all professionals participate in the development of the project goals and objectives.

The clear benefits of this approach are:

- *Faster delivery.* Reduces cost, accelerates revenue
- *Tighter integration.* Fewer changes and lost ideas, complete investigations

- *Better product.* Single team focus, accurate scope of work

### **RELAY RACE OR CREW TEAM?**

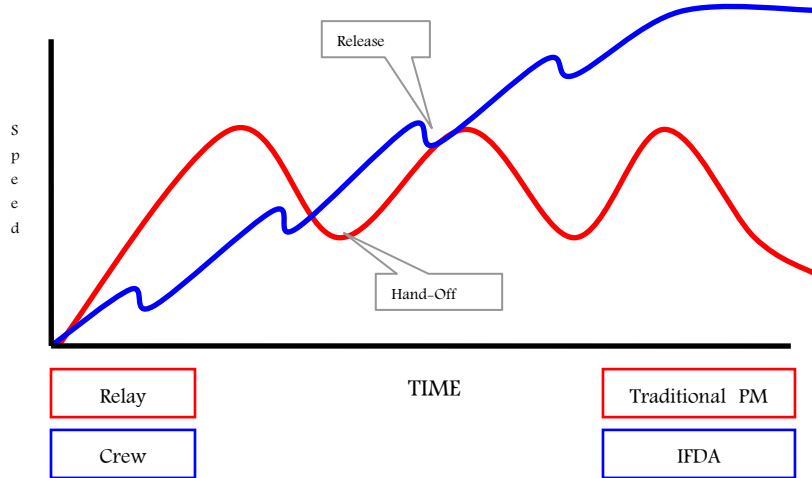
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The most critical points of failure on any project are the transitions from one team member to another. It is during this exchange when crucial information is lost. To minimize this risk, the best teams will slow their production, thereby extending the schedule and adding “ramp-up” costs. The alternative is losing sight of important goals, or worse, critical drivers. This methodology reflects the challenges of a relay race. Every time the runners complete their laps, they slow their pace considerably to assure a secure hand-off of the baton.

Alternatively, in a crew race, the entire team begins together, each position entering the race with an equal and synchronized effort. While the efforts of each

individual may be less intense, the collective whole can maintain a higher and stronger output for a prolonged period. They steadily increase their speed until they reach peak performance. Under the leadership of a single captain, they will travel at a constant speed with grace and consistency. This is the ideal model for building a project team. With early input from all major team members, under a single captain, the cumulative effect is a more efficient team producing a product of superior quality. This strong team building tactic is reflected in the *IFDA*.

Jones Lang LaSalle's Integrated Facility Development Approach provides the same efficiency as a well-coordinated crew team. Risk is controlled through full team efforts and the avoidance of dangerous hand-offs during development.



Hand-offs present the greatest challenge to a team effort. This is the point of failure in traditional program management.



OR



Crew racers reflect a level of collaboration we seek to emulate. Having an entire team working together in perfect synchronization produces the formula for success.

**NISAN GERTZ** is a Vice President for Jones Lang LaSalle.