

Building a State-of-the-Art, World Class Hospital

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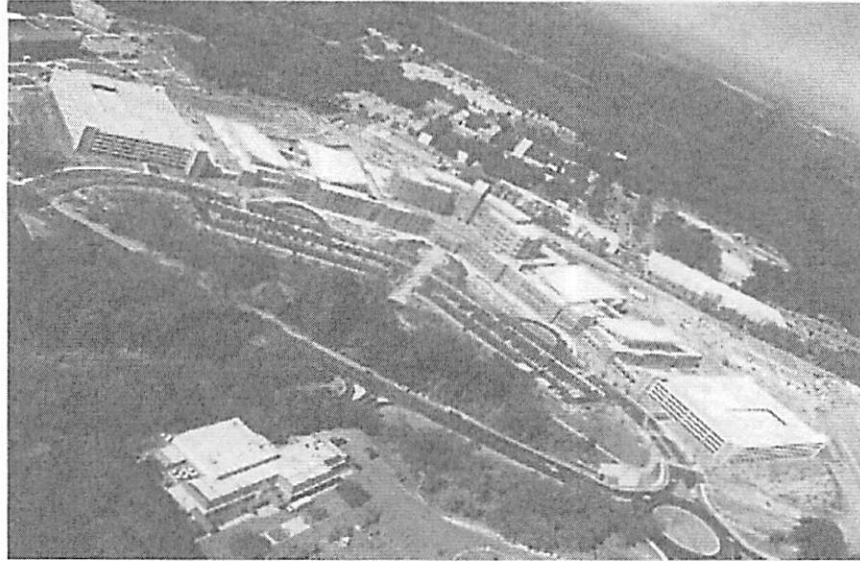
This case is based on the Ft. Belvoir Community Hospital Lessons Learned Report, compiled for the Norfolk District, US Army Corps of Engineers by McDonough Bolyard Peck, Inc. (MBP). We specifically acknowledge Mr. Larry Anderson, MBP Senior Program Manager, the lead author of this report.

The case focuses on the challenge of building a state-of-the-art, world class medical facility for the U.S. military. This project had high visibility in both the US public and private sectors. The challenge was to design and build this facility within a four-year Congressionally-mandated window, something that usually takes between 6-8 years to complete.

From the project's inception, conditions were hardly favorable for a successful completion. The local construction industry was very busy with both private sector and Government projects, many materials (steel, cement) were experiencing record inflation and volatility and the availability of sufficient skilled labor was questionable. While the project experienced considerable cost growth, delivery was on time - the facility was outfitted and occupied by the government-mandated deadline. This case explains how the project's leaders were able to make this happen.

Introduction and Background

Construction of the recently completed Ft. Belvoir Community Hospital is serving as an interesting case study of how to successfully build a new, high-tech hospital in the federal sector. It was a mammoth undertaking.



The Ft. Belvoir Community Hospital

Base Realignment and Closure (BRAC) congressional legislation of 2005 required closure of Walter Reed Army Medical Center and structural realignment of military health care in the National Capital Region (NCR). In a shift from having separate service-specific facilities for the Army, Navy, and Air Force, this realignment called for two primary hospital facilities in the NCR to serve military members and their families from all services: a renovated and upgraded Bethesda Naval Hospital (since renamed "Walter Reed National Military Medical Center") and the brand new Ft. Belvoir Community Hospital (FBCH).

Traditional construction metrics – schedule, scope, quality and cost – all provided significant challenges in the delivery of FBCH. Most challenging was the time constraint. New construction had to be complete so the old Walter Reed could close by September 15, 2011 to comply with BRAC law. This meant that the new FBCH facility progressed from a concept sketch on a napkin to a complete, functional medical center of 1.2 million square feet, 55 clinics housed in five different buildings, two parking garages and a utility plant in just 3 years and 10 months time. A project of this magnitude using traditional construction approaches takes at least twice this long.

Despite this aggressive schedule, there would be no shortcuts on the project scope and expectations of high quality facilities and medical equipment. A May 2009 Department of Defense report entitled "Achieving World Class, An Independent Review of the Design Plans for the Walter Reed

National Military Medical Center and the Fort Belvoir Community Hospital” (Kizer, McGowan, & Bowman, 2009) made this clear. Our Warriors and their Families would be served with a Congressionally-defined world class standard, and our nation’s leaders from both the Department of Defense and Congress were watching closely to ensure that this standard was met. Of course, return on taxpayer investment was also a concern as the dollars invested from all sources for FBCH alone topped \$1.2 billion.

Deliver an enormous world class health facility, do it in record time, under the highest scrutiny of our national leaders, while making sure every dollar invested was used judiciously – this was the challenge facing the Project Delivery Team, an integrated group representing over a dozen separate organizations, agencies, and companies. They delivered. FBCH opened for business on August 31, 2011, two weeks ahead of the BRAC deadline and less than four years from the architect’s design concept napkin sketch. That day more than sixty patients were seen in the emergency room, the first person was admitted for inpatient care, the first surgery was conducted, and the first baby was delivered under the watchful care of FBCH staff consisting of Army, Navy, Air Force, Marines, and the Department of Defense civilian workforce.

The challenges of delivering FBCH and the dynamics of the integrated Project Delivery Team that completed this mission yielded numerous leadership lesson learned. While the team achieved ultimate success, it was not easy. A formal collection and analysis of these lessons learned is still ongoing as of this writing, but four of them stand out.

1. Get the Culture Right

To deliver FBCH in the compressed time allotted, the US Army Corps of Engineers used a fast-track delivery method it calls “Integrated Design Bid Build” or IDBB. This is an integrated project delivery method that required the design contractor and the construction contractor to each work under the leadership of the Corps of Engineers in an integrated fashion, rather than sequentially as in the traditional “Design-Bid-Build” model or together as a single entity as in the “Design-Build” method. This construct allowed the team to ‘hyper fast-track’ construction. In some cases, construction workers were waiting on site as design documents were completed and run out to them to commence building literally on-the-spot. Later in the project, other stakeholders such as furniture outfitters, information technology contractors, security and life safety specialists, and even medical equipment trainers all integrated with the construction effort to produce a working hospital in time to meet the BRAC deadline.

One venue where industry and the Corps of Engineers come together to share lessons is the Construction Industry Institute (CII). CII defines project “culture” as the degree to which (1) project leadership is defined, effective, and accountable; (2) communication within the team and with stakeholders is open and effective; and (3) the team fosters trust, honesty, and shared values. Under this definition, the FBCH project labored early as various partner and stakeholder cultures merged. That the Project Delivery Team worked through these difficulties and moved toward completing the project with considerable success is a credit to the grit and determination of those people who emerged – at every level of every organization – to get this job done. In retrospect, they would probably all say that it should not have been so difficult.

A factor which restrained progress in this regard was that the Integrated Program Office (IPO) was initially allowed to behave as multiple different “fiefdoms” rather than as a unified whole. Faced with the new IDBB delivery method and integration of multiple partners and stakeholders, senior leaders initially made assumptions based on traditional operating processes that did not pan out with the new approach. Strategic direction was inadequate to set a successful course for FBCH project delivery, and recognition that the unique challenges of this project required significant senior leader engagement and decision-making was slow. Early on, a number of organization-to-organization communication links were clearly strained as various team members strove to complete “their” missions without clear understanding of impacts to other team members and the mission as a whole.

Midway through the project, when it became clear that project delivery by the BRAC deadline was in jeopardy, senior leaders moved to “get the culture right.” This entailed engagement with the very top (CEO) leadership of the organizations involved: initially the Corps of Engineers, design and construction contractors, and the client organization, then later other stakeholders organizations critical to hospital operations. Monthly Senior Executive Review Groups (SERGs) were established to review progress and strategic direction, and address any obstacles that threatened positive forward movement in the project. These forums also afforded senior leaders the opportunity to set priorities and adjust the logic-driven integrated master schedule to ensure the broad team had the best possible chance at success.

Once the top-level leaders were engaged and aligned, a positive culture trickled down to the program management and working levels. Program managers – call FBCH “Principles” – developed an integrated master

schedule that each member personally signed. They then reviewed it monthly to hold each other accountable, adjust as problems arose, and remain centered on the overall team goal. The monthly meetings did not always go smoothly – there was often contentious discussion as individual goals and schedules conflicted, but the spirit of the team to achieve collective success always prevailed. Risk was taken, shared, and mitigated on hundreds of different issues and challenges associated with delivering this major medical facility. The team adopted a mantra: “August 2011 – Whatever It Takes!” The singular goal of opening the FBCH for medical care was clear to all and the driving force for the team.

2. Focus on The Basics: Processes, Resources and Client Needs

In addition to having a healthy culture, an effective project must execute its fundamental responsibilities prudently. For construction projects, there are three widely recognized project management imperatives: management of the schedule, management of the costs, and quality control/assurance. We add two more to round out our Project Management “Big Five”: safety management, and transparent client communications/expectation management. In a number of important respects, the FBCH project strained to execute prudently, largely because of disconnects between the objective and the approach being taken to get there. The new IDBB project delivery method was no excuse for inadequate attention to project management fundamentals, but unfortunately that was the initial condition.

At the beginning of the project, the Corps of Engineers made major scope reductions to fit within the available funding. Later, the reduced scope was added back in with increased funding as the “world class” standard and intent was clearly defined. However, the Project Delivery Team had to cope with the consequences of these early decisions throughout the project’s life. Coordination and associated impacts of this major change were not thoroughly communicated and understood. Project management basics such as an approved Project Management Plan (PMP), effective change management, and use of Earned Value Analysis were inadequate or incomplete. Another basic – client communications – was uneven. Early on, some senior members of the Project Delivery Team could not identify the specific “client” for the FBCH project among the multi-agency Department of Defense Health Affairs team. Everyone needed to be on the same page – and they weren’t.

A central concern in this area is that the priority among safety, quality, scope, schedule and cost must be clear. Rather than a relative priority being established, there was much misunderstanding about how a ranking

among them would work in practice. The stakeholders generally were not familiar with how the IDBB delivery method was supposed to work. In our formal lessons learned collection effort, some stakeholders reported that cost and schedule, by the evidence of what occurred, held a higher priority than quality on this project. This was at odds with the priority preferences of most stakeholders who earnestly sought a “world class” project. Had all of the stakeholders been exposed to how the IDBB method was supposed to work, and a sharper focus on project management fundamentals been emphasized, a better alignment of priorities could have been achieved.

3. Train Participants for their Roles, especially with Novel Processes

The FBCH used the Integrated Design Bid Build (IDBB) project delivery method. There is no question that this method enabled the team to achieve the compressed schedule required by the BRAC law. This project would not have successfully made that deadline if it had used traditional construction project delivery methods. However, IDBB was new to the team and it did not succeed in reaping the most sought-after benefits of this novel methodology. Many of the lessons learned in this regard delve into the complexities of the IDBB approach, which would be a full paper unto itself. With respect to leadership lessons, however, suffice it to say that when a team embarks on a mission using a new process or tool, it must train to be successful. Several aspects of the IDBB method such as “design-assist”, achieving “production point”, and finalizing the contractual firm-fixed-price (FFP) agreement were unnecessarily painful and in many cases conducted in a “learn-as-you-go” fashion. Taking the time on the front end to train on IDBB fundamentals would likely have resulted in the new methodology being used in a more optimal way, as well as serving to define roles and align the team before it embarked upon its mission.

4. Make Use of Valuable, Sophisticated Tools

Similarly, the same comment can be made concerning tools such as Earned Value Management and Schedule Analysis. The construction industry has valuable tools to measure performance and, by extension, keep stakeholders aligned. In large integrated projects like FBCH, it is critical that these tools are used and understood by both the Project Delivery Team and external stakeholders. If they are not used, or used in ways that do not engage important features, we will never know what they might have added.

The starkest example on the FBCH project was the use of Earned Value Management. This concept tracks production and cost against the base line of how the project was planned to be done. Leaders use this tool to provide

a clear picture of project performance. As the FBCH project got underway, a decision was made to forgo use of Earned Value Management as a tool available to the team. Much later, as the project neared completion, available funds were dwindling, and the calendar clicked closer to the BRAC deadline, having an Earned Value Analysis would have been especially helpful as a common platform to engender confidence in the status of the project.

Conclusion

The Ft. Belvoir Community Hospital project was a significant success and, for many of the participants of the Project Delivery Team, a career highlight. Our team operated with a spirit of continuous improvement, and it is in that spirit we share our FBCH experience. These four lessons – getting the culture right, focusing on the fundamentals, training new processes, and using available tools – are not especially fresh new ideas. But, they become especially important in large, complex endeavors like construction of the FBCH where new delivery strategies, team integration and broad stakeholder participation are central components.

References

Kizer, K.W., McGowan, M., & Bowman, S. (May, 2009). Achieving world class, an independent review of the design plans for Walter Reed Military Medical Center and Ft. Belvoir Community Hospital. National Capital Region Base Realignment and Closure Health Systems Advisory Subcommittee of the Defense Health Board.

Key Lessons In Leading Change

- 1. Preparing for change is a critical part of the change process.**
- 2. Engaging senior leaders can make or break change projects.**
- 3. Get the culture right.**
- 4. Focus on the basics in implementing changes: processes, resources, and client needs.**
- 5. Train participants for their roles and especially for new behaviors, skills, and processes.**
- 6. Make use of valuable tools.**
- 7. Keep people focused, create opportunities and processes for open communications and problem solving, and celebrate successes.**

Discussion

1. When faced with a significant challenge such as building a world class hospital in record time, what are some steps leaders can take to prepare those involved, considering some may have different objectives and processes, for change, success, and unity of purpose?
2. The overall vision for the project appeared to be to build a world class hospital in record time and the motto adopted for the project was “August 2011 – Whatever It takes!” Do you think it is important to take the time to have a vision or motto to provide focus for a major change? Discuss reasons for your position.
3. Why is it important to define, build, and reinforce a supportive culture in successfully accomplishing change? What was done in the case to build a supportive culture?
4. Why is it important to plan for significant senior leadership engagement and involvement in making significant changes? What was done in the case to engage and unite senior leaders?
5. A lesson learned during the project was the need to focus on the basics such as processes, resources, and client needs in implementing changes. What was done in the project to keep people focused on the basics?
6. Another lesson learned was the importance of training participants for their roles and especially where the roles require new behaviors, skills, or ways of doing things. Why is this aspect of change so important and what are some of the consequences when people are not properly trained?
7. A final lesson learned was the need to make use of valuable, sophisticated tools such as management tools, technology, and state-of-the-art processes. What can be done to discover and utilize these tools and best practices?
8. As various team members enter and leave change projects, what can be done to ensure continuity over the life of the project?

BIOGRAPHY

Jeanne D. Maes currently serves as Board President of the International Society of Organization Development and Peer Review Editor for The Organization Development Journal. She is Professor of Management in the Mitchell College of Business at the University of South Alabama. An experienced facilitator, consultant, and executive trainer, Dr. Maes' areas of specialization include communication skills, conflict management, partnering, team-building, and leadership. Her articles have appeared in numerous national and international publications, and she has made presentations to such groups as the American Bar Association Section on ADR, the Society of Professionals in Dispute Resolution, the Alabama Governor's Task Force on State Agency ADR, and the Florida Dispute Resolution Center, and others. Additionally, she has served as a volunteer district court mediator and is an arbitrator.

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Colonel Andrew W. Backus assumed Command of the Norfolk District, US Army Corps of Engineers on June 12, 2009. As District Commander, he manages the Corps' water resources development and navigable waterways operations for five river basins in the Commonwealth of Virginia. These include the Rappahannock, York, James and Chowan rivers and the Chesapeake Bay coastal basin. He is also responsible for the Corps' military design and construction projects for Army, Army Reserve and Air Force military installations throughout Virginia. He manages the Corps' regulatory, environmental restoration, flood damage reduction (including

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hurricane and storm damage reduction) and disaster response activities, and also provides engineering support to our nation's Overseas Contingency Operations.

Colonel Backus recently completed his Senior Service College year as the Army's Leadership and Management National Security Fellow at Harvard University. Prior to attending Harvard, he served as a Human Resources Manager in the Senior Leader Development Office on the Army Staff at the Pentagon.

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William A. Sorrentino, Jr. has served the Government for 25 years beginning his service with the U.S. Army Corps of Engineers in 1977. He has served in various positions in the Corps, which includes structural design, project management, construction management and operations management, both in line and staff positions. Mr. Sorrentino is currently serving as the Chief, Technical Services Division at the Army Corps of Engineers, Norfolk District. In this position, he has responsibility to manage and lead the district's largest division which includes Planning, Engineering, Construction, Operations, Regulatory, Real Estate and Emergency Readiness. He serves as a principle advisor and consultant to the Commander on technical and key matters.

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Jim Moore is a consultant offering technical, management, and facilitator services. He has over 28 years of experience in managing large organizations and public works projects. Since 1976, he has designed, constructed, and managed real property for various Government Agencies. In 1999, Jim served as the Chief Engineer for the Base Camp Coordinating Agency in Kosovo. In 2001, he consulted with the Polish Government on the design, construction, and repair of levee systems. He is a subject matter expert in Hazardous, Toxic, and Radioactive Waste, and taught a number of courses in this field. He facilitates partnering services for a variety of clients in Israel, Qatar, and Egypt, served on an AGC Task Force to reinvigorate the Partnering Process, and authored several articles on the process. Jim resides in Mt. Pocono, Pennsylvania. He is a registered professional engineer in Pennsylvania and a CMCI Certified Construction Manager. His education includes a BS in Civil Engineering from the Penn State (1976), and an MS in Management of Technology from Lehigh (1999). He is a member of ASCE and Chi Epsilon. Among his awards are the deFleury and Army Achievement Medals.

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Robert A. Shearer has served as Vice President for Planning and Assessment at Brevard Community College, and Assistant to the President for Academic Affairs and Professor of Management at the University of South Alabama in Mobile. A member of the Florida and Virginia bars, he is a certified state and federal court mediator and arbitrator. He has presented numerous programs at conferences sponsored by organizations such as the American Bar Association Dispute Resolution Section, the Florida Dispute Resolution Center, the Florida Academy of Professional Mediators, the Alabama Governor's Task Force on State Agency ADR, and the Society of Professionals in Dispute Resolution in the areas of mediation, arbitration, conflict management, interest-based negotiation, team-building, and workplace legal issues. In addition, he conducts executive training sessions on these topics and has chaired public employee grievance hearing panels. As a partnering consultant and facilitator, he has worked with private contractors and government agencies on complex, multi-party projects.

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