# Lutheran Hospital Emergency Department

Cleveland Clinic  
Cleveland, OH

By Sue Klawans  |  Based on an interview with Ron Lawson and Doug Lippus, Cleveland Clinic

## PROJECT GOALS:

<table>
<thead>
<tr>
<th>Patient/Physician /Staff/Team Satisfaction</th>
<th>Budget/Schedule Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Engagement Throughout</td>
<td>Make Decisions That Will Benefit The Entire Hospital</td>
</tr>
</tbody>
</table>

**INSIDE:**
- project information
- successes
- lessons learned
- insights
- interview excerpts
PROJECT INFORMATION

PROGRAM
• Square footage 29,000 sq. ft.
• Increase beds from 14 to 21.
• Increase visits from 24,000 to 30,000 patients a year.

TEAM/BUDGET/SCHEDULE
• Owner: The Cleveland Clinic
• Architect: Bostwick Design Partnership
• Construction Manager: The Krill Co., Inc.
• Project Budget: $18M.
• Schedule: 5 Months Design and 8 Phases of Construction Over 22 Months

CHALLENGES
• Maintaining patient satisfaction and safety.
• Keep Emergency Department operational.
• Making decisions to execute the project, being mindful of the ultimate impact to the cost of health care for patients.
• Working with a facility built in 1957.

SUCCESSES
✓ A project team which, from day one, embodied the “Team First” concept from the top down.
✓ Increased patient satisfaction rate during construction.
✓ Interactive scheduling allowed the entire team to be innovative, resulting in an 8 week schedule reduction or 3% of schedule, saving $72,000 in construction costs. Early turnover of the space allows the Hospital serve more patients and earn revenue in addition to fiscal plan.
✓ Collaborative dialogue and consideration for construction alternatives allowed the team to reduce the project budget. One example was to pre-fabricate exam room headwalls, saving 578 man hours.
✓ Implemented and executed an invasive existing condition analysis, which resulted in changes net zero impact to project budget and schedule due to unforeseen conditions.
✓ Proactive confirmation of user needs resulted in deduct change orders to the project.
✓ Successful utilization of BIM as a collaboration tool allowed proactive multidiscipline coordination, which enabled conflicts to be worked out virtually prior to impacting construction budget and schedule. Construction contingency dollars used for rework are less than $10,000 or 0.1% of construction contingency.
✓ No recordable safety incidents in 51,254 man hours worked.

LESSONS LEARNED

DOs
✓ The Owner must lead by collaborative example.
✓ Creating a project specific mission and goals allows the team to create a common definition of a successful project.
✓ Constantly reiterate what matters most: project specific goals.
✓ Take time to develop a trusting relationship among team members.
✓ Set up multidiscipline teams to track progress on goals and resolve specific issues.

DON'Ts
✗ Do not tolerate incomplete or nontransparent thoughts and information.
✗ Do not allow one-sided solutions.
✗ Do not focus on just one goal.
✗ Do not let non-performing team members stay on the project.
INSIGHTS INTO:

CREATING A TRUE TEAM

- Owner is to inspire and lead the team.
- Provide a third party facilitator to build the team through a Team Development process creating project mission, goals, strategies and results.
- Select the team based on qualifications, personality, and price.
- Orientate all team members to mission and goals.
- Delegate to the right person, regardless of discipline.
- Keep all team members actively engaged from design through substantial completion.
- Implement executive rounding, similar to medical rounding, integrating job site walks to gage progress.
- Monitor progress and make adjustments to project culture as needed.
- Provide recognition and celebrate team successes.

SUCCESSFULLY RENOVATING A 1957 BUILDING IN 2014 WITHIN THE ORIGINAL BUDGET

- Execute invasive existing conditions investigation to understand hidden conditions.
- Include constructability input during design to create informed budgets.
- Collectively generate schedule including Owner, Architect, Engineer, CM, and trades.
- Create a partnership with Hospital Facility Staff to truly understand the building capacity and limitations.
- Demand an active presence of A/E during construction, allowing the trades to communicate directly to A/E.
- Allow for evolution of constructability plan – encourage prefabrication.

IMPROVING PATIENT SATISFACTION SCORES DURING A 2 YEAR PHASED RENOVATION PROJECT

- Require all team members to watch Cleveland Clinic Empathy Video to put the purpose of the project in context of those that experience the space for clinical purposes.
- Send out weekly newsletters to hospital staff, post newsletters in elevators and prominent locations, highlighting planned construction activity and noise level.
- Create mock-up space for training on new equipment and flow.
- Inform Hospital standard daily clinical safety meetings with critical updates on construction.
Q: Do you think collaboration can add value to a project?
Yes. In healthcare, it is about the patients. We are caregivers. People are our business. When the medical staff collaborates, better results are achieved for the patients. Our Owner Controlled Team Project Delivery method mirrors the healthcare approach provided at Cleveland Clinic. Team members collaborate together to build spaces that serve patients.

Q: How did you get started developing your collaborative approach?
We started implanting OCTPD a decade ago. We have completed $1.5 Billion in work successfully using this approach. Every project, since our first, has taken another step to improve outcomes by enhancing collaboration. Our results included: improved schedules, budget reliability, reduced change orders, and improved quality and safety.

Q: How does OCTPD work?
OCTPD is successful only if everyone works as a team committed to the success of the project. Creating a sense of teamwork starts with team selection. Together, we created a project specific mission, goals and metrics. We set time aside to discuss the importance of alignment to ensure project goals were met. But that was not enough, we needed to act as a team, not just talk about being a team. Two additional fundamental concepts of OCTD are multi-discipline task teams working together to solve specific problem and proactive coordination.

Q: What is the key to getting this level of commitment to collaboration?
The key is transparency, starting with the Owner. We share a common desire for the project and the budget. We demanded the teams do the same. Transparency of thoughts enhanced the engagement to the project, resulting in informed decision making. Stepping back and reflecting on this project, we know we had the right people engaged to make the right decisions. We built trusting relationships that allowed us to share our thoughts and positions freely.

Q: Compared to projects done before the OCTPD framework was implemented, what difference do you see?
The difference is simple, better people, better process, and better outcomes.

Q: How did you produce the schedule savings and reliability?
The schedule was a living process, which began during design when the CM and key contractors created a partnership with the design team. A team based approach to existing conditions review and constructability input on key design elements, including the canopy, allowed the schedule to be more accurate prior to the start of construction. The electrical contractor suggested the addition of an enabling phase, allowing them to run their wires to make room for others. The Owner played a key role in the phasing of the project as well. They agreed to shuffle workflow, allowing the contractors access to certain spaces sooner, improving the flow of construction. These are just two examples of many that resulted in a team who understood the mission of the project.

Q: What has been most remarkable to you about the benefits of a truly collaborative approach?
We received innovative initiatives from all members of the team. Trade contractors opened up and contributed to design intent. Designers and engineers learned from contractors. Everyone has improved their process, and not just on this project. We heard from many companies that their people only want to work under the OCTPD process.

“Better people, better process, better outcomes”
Doug Lippus
Cleveland Clinic