

Collaborative Inspection Approach to Field Inspections

Webinar Presentation Outlines:

A. Ownership – Gary Dunger

I. Introduction

A. Welcome and Purpose

- Inspection from an Owner's perspective.
- Importance of inspections for safe, functional healthcare facilities.
- Construction Team dynamics.

B. Icebreaker Question

- "What could go wrong if a hospital isn't properly inspected during construction?"
- A hospital owner plays a critical role in ensuring that construction inspections contribute to the success of a project by acting as the overseer and decision-maker who aligns the inspection process with the project's goals, quality standards, and operational needs. Their involvement is key to bridging the gap between design intent and practical execution.
 - o Stay involved: Successful owners stay involved in the project,
 - o Setting Expectations and Standards: The hospital owner defines the quality, safety, and compliance benchmarks for the project, often based on regulatory requirements (like healthcare facility codes) and the hospital's operational vision. They ensure inspections are structured to verify these standards are met, not just to check boxes.
 - o Hiring and Coordination: They're responsible for selecting competent teams—whether they are architects, contractors, or third-party inspectors—and ensuring everyone understands the inspection's scope. By fostering collaboration, they prevent miscommunication that could derail progress or compromise quality.
 - o Resource Allocation: Inspections require time, skilled personnel, and sometimes specialized tools. The owner ensures these resources are available, balancing cost with the need for thorough oversight. Skimping here could lead to missed defects or delays.
 - o Risk Management: Hospitals are high-stakes environments—structural failures or non-compliance can endanger lives. The owner uses inspections to identify risks early (e.g., faulty electrical systems or inadequate infection control measures) and demands corrective action before issues escalate.
 - o Decision-Making on Findings: When inspections uncover problems—say, a misaligned foundation or subpar materials—the owner decides how to proceed, weighing options like rework, redesign, or acceptance of deviations. Their judgment keeps the project on track without sacrificing functionality.

- Long-Term Perspective: Beyond construction, the owner thinks about the hospital's lifecycle. They push for inspections that ensure durability and maintainability, not just immediate occupancy, so the facility serves patients effectively for decades.
 - For example, if an inspection reveals HVAC issues, a proactive owner wouldn't just demand a quick fix—they'd ensure the system meets future patient care demands, like precise climate control for surgical suites. Their role isn't hands-on in the technical sense but strategic, keeping the big picture in focus while trusting experts to handle the details. Ultimately, they're the glue between the inspection process and a successful, safe, operational hospital.

C. Key Learning Goals

- Understand hospital construction stakes.
- Recognize consequences of poor inspections.
- Learn best practices for inspection processes.

II. Why Hospital Construction is Unique

A. High Stakes Environment

- Hospitals serve vulnerable populations.
- Zero tolerance for structural/system failures.

B. Regulatory and Compliance Demands

- Relevant standards (e.g., Joint Commission, OSHPD, local codes).
- Example: Infection control during construction.

C. Complexity of Systems

- Integration of systems (medical gas, emergency power, sterile environments).
- Case Study: A hospital project impacted by poor inspection.

D. California Health & Safety Code, Section 129825(a)

- The hospital governing board or authority shall provide for and require competent and adequate inspection during construction or alteration by an inspector satisfactory to the architect or structural engineer, or both, and the department. Except as otherwise provided in subdivision (b), the inspector shall act under the direction of the architect or structural engineer, or both, and be responsible to the board or authority.

III. The Role of Adequate, Competent and Continuous Inspection

A. Certified Hospital Inspector Code of Ethics

B. Certified Hospital Inspector's Principal Duties

C. Definition of "Adequate, Competent and Continuous"

- Thorough, timely, covering critical phases.
- Qualified inspectors with relevant expertise.
- Continuous:

D. Types of Inspections:

- Continuous

- Periodic - Inspection Requests
 - Required – TIO
 - E. Key Areas Requiring Inspection
 - Structural integrity.
 - Mechanical, electrical, plumbing systems.
 - Fire safety and egress routes.
 - Infection control measures.
 - F. Benefits of Proper Inspection
 - Ensures safety.
 - Prevents costly rework/legal liabilities.
 - Maintains timelines and budgets.
 - Supports operational efficiency.
- IV. Consequences of Inadequate Inspection
- A. Safety Risks
 - Examples: Collapsing structures, electrical fires.
 - B. Financial Impact
 - Cost overruns from fixing defects.
 - Lawsuits or fines for non-compliance.
 - C. Operational Failures
 - Delays in opening.
 - Systems that do not meet healthcare needs.
 - D. Real-Life Example
 - Discussion of a hospital construction failure due to poor inspections.
- V. Best Practices for Effective Inspections
- A. Owner establishes the success of the project
 - Stay Involved
 - Share expectations with team
 - B. Qualified Personnel
 - Certified inspectors with healthcare experience.
 - Required training and credentials.
 - C. Comprehensive Inspection Plans
 - Pre-construction, during, post-construction phases.
 - Hospital-specific checklists.
 - D. Documentation and Accountability
 - Detailed records of findings and actions.
 - Use of technology (inspection software, drones).
 - E. Collaboration
 - Coordination between contractors, inspectors, stakeholders.
 - Regular progress meetings.
 - F. IOR Communication
 - G. Administrative Support

- H. IOR Inspection Request Program as part of the contract
- I. Plan for Close-Out at the beginning of the project

VI. Case Study and Discussion

A. Case Study Presentation

- Successful hospital construction project example.
- Highlight measurable outcomes.

B. Group Discussion

- "How can your projects incorporate these lessons?"
- Facilitate sharing of experiences.

VII. Conclusion and Wrap-Up

A. Key Takeaways

- Recap: Safety, compliance, efficiency depend on competent inspections.
- Proactive inspection as essential investment.

B. Action Steps

- Review inspection protocols.
- Suggest follow-up training/certifications.

C. Q&A

- Address remaining questions.

B. Design Professional of Record – Scott Mackey

1. Who is the DPOR?
 - a. Captain of the Team
 - b. Step Up
 - c. Take charge
2. What is collaboration?
 - a. Why is it important?
 - b. How do you collaborate?
 - c. What are the obstacles?
3. Define the goal to success
4. New order of things = OACI
 - a. Communicate, communicate, communicate
5. Implement building code as a whole, not parts and pieces
 - a. As arbitrator of approved documents
6. Opportunities to consider alternate solutions
7. Follow through during construction
8. Caring to Pass
9. Success - What does it look like?

C. Contractor of Record/Sub-Contractor – Cody Bartley

Build-To-Pass

1. The contractor performs Quality Control to verify compliance with project plans and specs,
 - a. GC is not an inspector but needs to do their part in the inspection process, the IOR inspection should be an assurance to verify the QC has been performed and the work is in compliance with plans/specs and applicable code standards.
2. Quality control has many layers
 - a. QC effort needs to be brought forward in the process and starts with design and constructability reviews.
 - Look for opportunities in the drawings to make details better or propose better products.
 - Collaborate and integrate as a team.
 - If the construction team is involved in pre-con, start conversations/meetings with IORs to make sure everyone is on the same page with the inspection process
 - Create project-specific Inspection plan with buy-in from all parties involved, a collaborative approach encourages participation and success
 - Mockups are an investment but ensure alignment of expectation and provide opportunity to review inspection sequence. First in place, mockups again serve to align expectations and ensure success.
 - b. QC Process
 - QC starts with the person putting in the work. We want subcontractors that put the work in place to know the expectations and sign off on their position that the work or product they've put in place is in alignment with the design.
 - General contractor then looks at the work or product against the design criteria with another set of eyes. General Contractor should sign off on the work or product before the IOR is brought through. The IOR should not be the only entity that we rely on to inspect work.
 - The schedule will benefit if inspections are predictable, and the relationship with the IOR will be better if they know the project team is doing their part in the inspection process.
3. In addition to contractors doing their part with quality assurance, Contractors need the DPOR team to be willing and ready to answer questions or respond to RFIs on field conditions.
4. Part of IOR's duty on healthcare is continuous inspection; request that if the IORs have a question on something they've seen or noticed that might be an issue, don't wait to bring it up to project teams. The earlier it is identified the sooner we can get it corrected or answer the question before it becomes an on-the-spot issue during an inspection that then gets failed and has schedule implications.

- a. Failed inspections cause schedule implications, work starts to get chopped up, trades start to get stacked, productivity goes down. In a perfect world, we've all seen TAKT schedules and the reference to construction being like a TRAIN moving through the project; when one of the cars in front comes to an abrupt stop, everything behind it gets derailed.
 - b. Even with Subcontractors signing off on the work and general contractors doing quality control pre-inspections, things will still come up.
 - Example – Drywall screws used in electrical wall clips caught during ceiling close up inspection. Had made it through the electrical inspection, had been looked at but not noticed for probably six months. By that time it is buried, duct work is coming down to get access and the teams hurt the confidence/trust the IOR had built with them
 - c. QC Checklist.
 - Work with your IOR to develop this, make sure the project team knows what to look at and provide confidence in the process.
 - d. Talk about Challenges that face the contractor
 - e. Identify Opportunities to collaborate with the design team.
 - f. Track Inspection success rate, report the metrics, identify problems in the process that need attention to increase inspection success rate.
5. Bring back to team effort
- a. Need of DPORs to respond to questions and provide certainty when concerns are presented. May need DPOR to act as an arbiter, IORs place confidence in the design team and having their expertise when things are questioned helps facilitate the inspection process.
 - b. Need IOR to have open communications and ability to point out potential issues
 - c. Takes a team with everyone working together to build a project, everyone has a job to do but responsibilities overlap. Open and transparent communication allows us to talk about questions or concerns in an effort to resolve the issues in lieu of fighting a position.

D. Inspector of Record/Testing Lab – Michael Davis

E. OSHPD and Field Staff – Monica Colosi

- 1. Team effort with any project delivery
- 2. HCAI, Observe to Pass
- 3. HCAI Responsibilities
- 4. HCAI and Tools to Support
 - a. Construction Administration Proficiency (CAP)
 - b. Tip of the Day
 - c. IOR voluntary daily report template
- 5. Observe to Pass, documentation during construction
- 6. Inspect to pass mentality