

Avoid Complex Construction Headaches

Best Practices for Reducing Delays and Cost Overruns

Inevitably, you will see a familiar request to initiate a new construction project but as you review the requirements for this project, you get an uneasy feeling that this one is going to be trouble. Unlike most of the projects you manage, this one requires complex technical, mechanical, and electrical systems to enable a mission-critical facility to function properly.

Unlike simple office renovations, complex projects like laboratories, SCIF spaces, and medical/hospital projects contain elements that, if not properly managed, can cause cost overruns and delays. These are also the types of projects that are of extreme importance to agency management, lab directors, and facility managers. If these facilities don't function as needed, unpleasant consequences will follow.

Signs of Headache Projects

What are some of the warning signs of a complex construction project?

- ⚠ Construction activity for this project cannot disrupt other operations in the facility.
- ⚠ The facility is older with a higher likelihood of unforeseen conditions.
- ⚠ The location of the facility has environmental challenges.
- ⚠ The facility has other construction projects in progress at the same time and will require careful and well-planned coordination.
- ⚠ This project will require a major retrofit of power and environmental systems that will be needed to accommodate new mission-critical equipment.
- ⚠ The complexity of the project means that the budget allocated or required deadlines may be unrealistic.
- ⚠ Unique project specifications exist, which require subject matter expertise.

Projects with any of these elements are almost certain to create unnecessary problems when price is the deciding factor for the contract award.

Prior Proper Planning Prevents Poor Performance

There are four key decisions you must make before issuing the procurement that will make or break this project.

Design Bid Build or Design-Build?



Even if your agency has comprehensive and proven design guidelines and design capabilities, deciding to design and spec the project internally is risky. There may be hidden problems in the facility to be renovated or other factors that could derail the best plan. Issuing a procurement with set design requirements handcuffs the contractor and could lead to expensive change orders.

With complex projects, hiring a general contractor with excellent past performance history in designing and building complex facilities enables them to bring in the right design team for that particular project. Their combined experience and expertise can often identify potential problems and mitigate them before construction begins.

The other advantage of a Design-Build contract is that it will often discourage bidders that do not have extensive and relevant expertise and past performance from submitting a bid.

Low Bid or Negotiated?



It's always tempting to issue a contract to the lowest of multiple bidders, and for most simple construction projects, this method of award works well. But when you have a complex project, the lowest bidder can threaten how well the facility will function when delivered and can cause operational disruptions during construction.

Complicated projects are best left to an experienced design-build firm that can work with you in a team approach to ensure your unique requirements are built to exacting specifications, all while limiting disruptions to your facility's operations. All of this can be accomplished with financial transparency to ensure you are getting the best value for your money.

Setting a Fact-Based Budget and Timeline



All too often, project budgets and timelines are set from the unrealistic expectation of project stakeholders that have limited knowledge of the multifaceted factors that will impact the project. Having the general contractor design the project allows for collaborative planning that identify critical elements and adjust for them early in the process.

Choosing the Right General Contractor



To best insure a successful project, no decision is more important than choosing a general contractor with the right combination of past performance, commitment to quality, communication, expertise, and collaborative project management.

When evaluating whether a general contractor is a good fit for your complex project, it's important to look at their project history to see if they have successfully completed complex projects for other organizations that are similar to yours. A qualified general contractor will be glad to provide past performance examples, reviews, and Contractor Performance Assessment Reporting System (CPARS) documents for these projects and references from the project officers, contracting officers and facility managers from these projects.

Understanding Your General Contractor

Safety, quality control, and communication are paramount to the success of your complex project. You want a general contractor that will work collaboratively with you as a trusted partner, not just a bidder.

One such company is Matos Builders. They are a Baltimore, Maryland based general contractor that is an SBA Certified 8(a), HUBZone, and Veteran Owned Small Business (VOSB).

Because there are a multitude of DoD and Civilian agencies that require research, laboratory and secure spaces in the Baltimore-Washington corridor, Matos decided to focus their time and resources developing capabilities in design-build laboratories and secure facilities.



“As a Veteran-owned company, we understand that our customers are responsible for missions, not just projects. We commit to supporting their missions by delivering facilities that enable them to succeed.”

Mike Macsherry, President/Owner

The company undertook and successfully delivered complex projects for the University of Maryland BioPark, Johns Hopkins University, and Army Research Laboratory where they honed their skills and developed sophisticated project management and quality control systems and procedures.



Corporate Commitment to Complex Projects

Following their success with these customers, Matos realized their aptitude for complex projects in governmental and institutional facilities. Those projects proved to be a solid foundation for the work that Matos currently performs at some of the highest profile federal, state and institutional laboratories and secure facilities in the world.

As partner Richard Skayhan explains, “Private sector customers don’t want to pay for all the specialized reporting and administrative requirements that are mandatory with public sector and institutional projects. But once you’ve hired, trained, and nurtured project managers that can meet the requirements, and you’ve built the internal systems and processes to manage these complex projects, you don’t use all those project management and quality control processes on some projects and skip them on others.”

Quality People Build Quality Projects

As Matos developed their focus on complex projects, they realized that hiring and retaining employees with the right combination of expertise, experience, attention to detail, and communication skills would be the critical factor in their success.

Richard Skayhan comments, "At Matos, we have a rigorous screening and interviewing process to identify project managers, superintendents and other key employees that are self-motivated, self-managed, and hardworking. We then have an inhouse training program where they learn everything that goes into these projects. Through it all, we evaluate how well they communicate and if they work collaboratively with the customer, subcontractors, the rest of our team. If they don't meet all our critical criteria, they don't become part of the Matos team."

All project management personnel at Matos have, at a minimum, an OSHA 30 and NAVFAC/USACE CQM certification.

The focus on quality extends to finding subcontractors who are willing to have the same attention to detail that Matos demands of their own employees. "Through our team approach to every project, we empower our superintendents to make sure that the subcontractors are strictly adhering to the specifications of the project documents. In addition to dedicated quality management personnel, we insist our superintendents also perform daily jobsite inspections to ensure everything is exactly as specified in the design. Additionally, we select design, mechanical, and electrical subcontractors that we have worked with before on similar projects. The team we use for a SCIF space will be different than the team we use for a toxic gas lab, which will be different than the team we use for a bio-lab, etc." explains Skayhan.

Communication and Collaboration are Critical

One of the key reasons that Matos has been so successful in delivering complex construction projects on-time and

on-budget, is that they communicate openly and honestly with customers about the challenges inherent in the project instead of telling the customer what they want to hear.

"We recently were competing for a project where the customer wanted the project completed on a very tight timeline despite the critical technical and security requirements of the project which was a Security Operations Center (SOC). All the other bidders submitted their offerings with a promise to meet that deadline. In our discussion with the customer, we laid out the problems that had been glossed over by the other bidders and explained why the timeline was unrealistic. The customer understood that we were looking out for their interests, and we won and delivered the project to their complete satisfaction."



Richard Skayhan
Vice President/Owner

The company was also willing to work through the necessary steps to become an SBA certified 8(a), HUBZone, and Veteran Owned Small Business. This provides their government customers more contracting vehicle options with which to engage Matos.

Having become one of the most experienced and respected contractors in the Mid-Atlantic Region, Matos is paying it forward by routinely hiring employees who live in underserved communities in Baltimore, where Matos is headquartered.

Facing a Complex Construction Project?

**MATOS
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If your organization is planning a construction project that is too complicated to award on low price alone, talk to a general contractor with the past performance and expertise to identify potential problems in advance and mitigate the effects before they happen.

