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What to Do When Projects Go Bad, Part 2

by Bill Spragins, Brian Dwyer and Ed Lee

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Examining the role that different entities play in project disruption and recommendations on how to avoid these issues in the future.

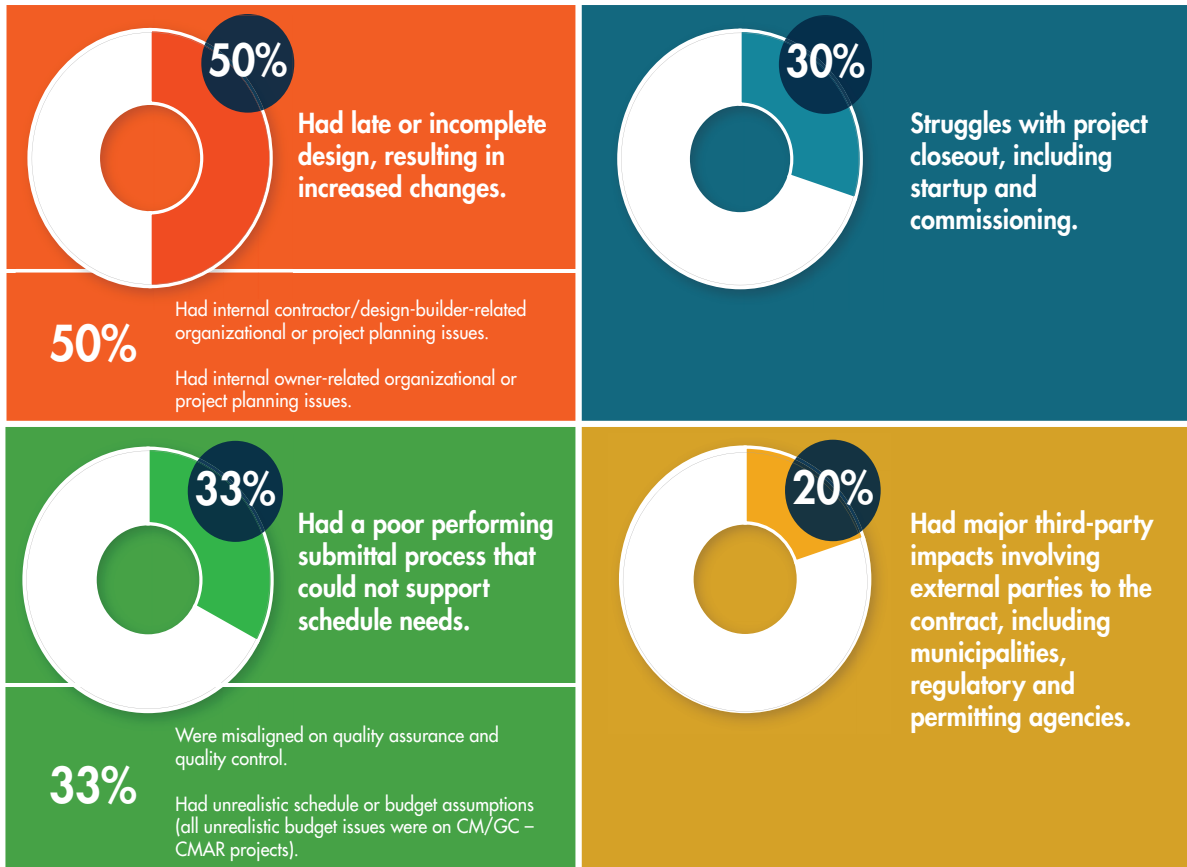
Even the most promising construction projects can get quickly sidelined by a few missteps, a couple of bad decisions, inadequate budgeting or any other number of challenges. Drawing on FMI's experience with more than 1,400 different projects and an in-depth review of 35 stressed projects from the last two decades, [Part 1](#) focused on common characteristics of these projects and underlying common causes (see Exhibit 1). The two key characteristics included projects being behind schedule in various degrees and having multiple unresolved issues, many of which involved unsettled changes or claims.

In Part 2, we will assess how each stakeholder influences or triggers some of these causal factors and provide recommendations on how to avoid these items on future projects.

What Can Go Wrong, Will Go Wrong

When problems start to spiral out of control and project timelines and goals get derailed, it doesn't usually take long for the finger-pointing to start. After all, finding the culprit, calling him or her out, and then finding ways to place the blame are just human nature.

Exhibit 1. Key Causal Factors Leading to Stressed Projects



Source: FMI Partnering Project Database

But this approach really doesn't have a place in the engineering and construction sector, where owners, contractors, designers and other entities all bear the responsibility for projects that get into trouble. Sure, some factors are jointly shared and others are unique to specific project stakeholders, but in the end, all parties contribute to the success or failure of any given project. However, owners ultimately must lead and establish an environment for success on how business will be conducted.

So while a proactive contractor can certainly help to rectify the issue, it is nearly always the owner who must be the guiding light in these situations. With this in mind, the selection and deployment of a project management team is a major contributor to project success or failure. Here's how the responsibility breaks down:

Project management team experience

Owner Items

In FMI's study, 50% of the projects contained elements of at least one of the following internal owner factors impacting the project:

- Inexperience with the use of a new project delivery system
- Inexperienced project staff
- Poor decision-making processes
- Unbalanced application of the contract requirements versus collaborative problem resolution by the CM for fee/program manager

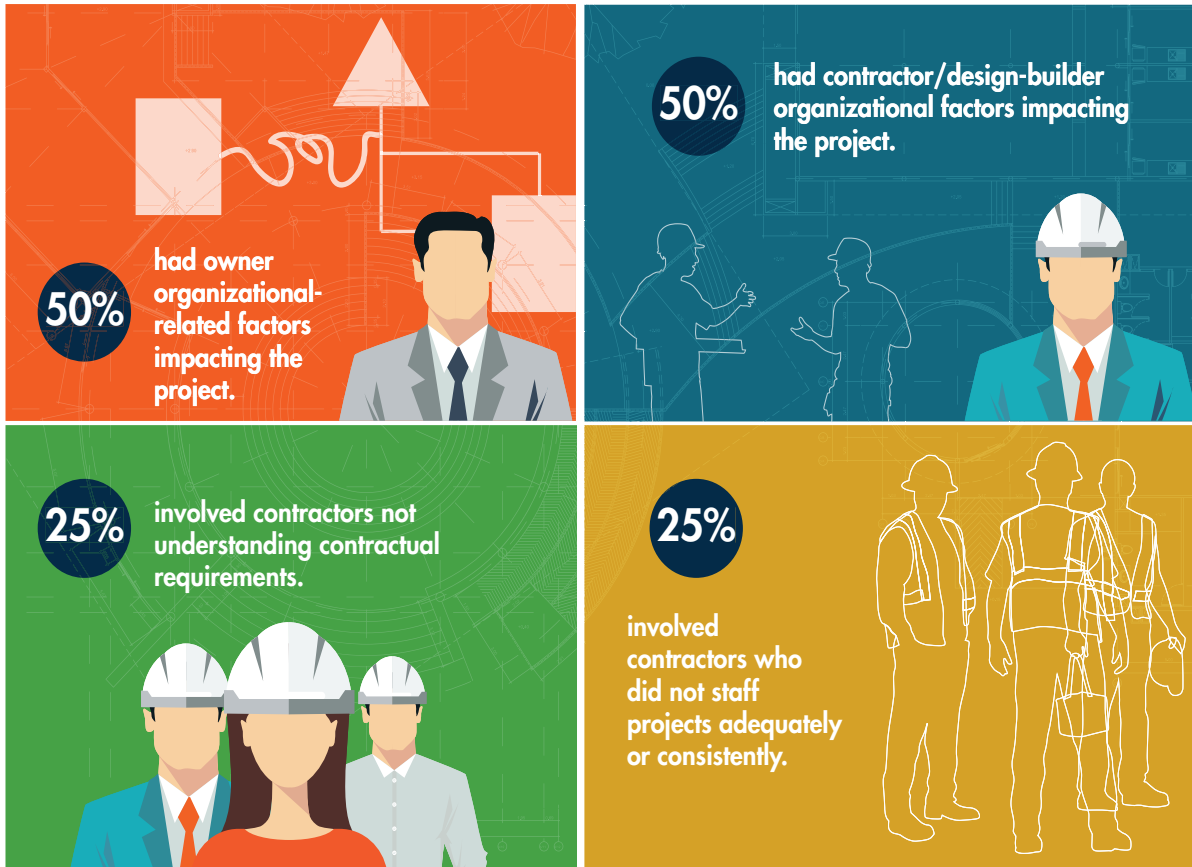
Contractor/design-builder items

Of the projects that FMI studied, 50% contained elements of at least one of the following internal to the contractor/design-builder:

- Misread of requirements/poor bidding assumptions (particularly on design-build projects)
- Inexperience with the type of work
- Inexperienced project management
- Unaligned internal joint venture team

The perfect storm is created when an inexperienced owner organization with poor decision-making is matched with an inexperienced contractor who is not fully organized or staffed at project initiation. This often leads to each party defaulting to its interpretation of the contract to resolve every inevitable issue that arises on the project. Executives only intervene in a “reactive” manner, when things have reached a crisis mode and changes/financial outlays have reached an unsustainable level.

Exhibit 2. Most Prevalent Root Causes of Stressed Projects



Source: FMI Partnering Project Database

Key recommendations on how to set the stage for success:

Owner Considerations

- Choose alternative delivery systems only when the organization is aligned internally on the speed of decision-making that will be required to support the project schedule.
- Be as clear as possible during the procurement phase on requirements, priorities, uncertainties and the likelihood of changes and betterments.
- Establish a prompt decision-making path with a point person who is empowered and/or available to escalate issues. Determine how to get decision-makers available for critical pieces of the design to keep it on track.

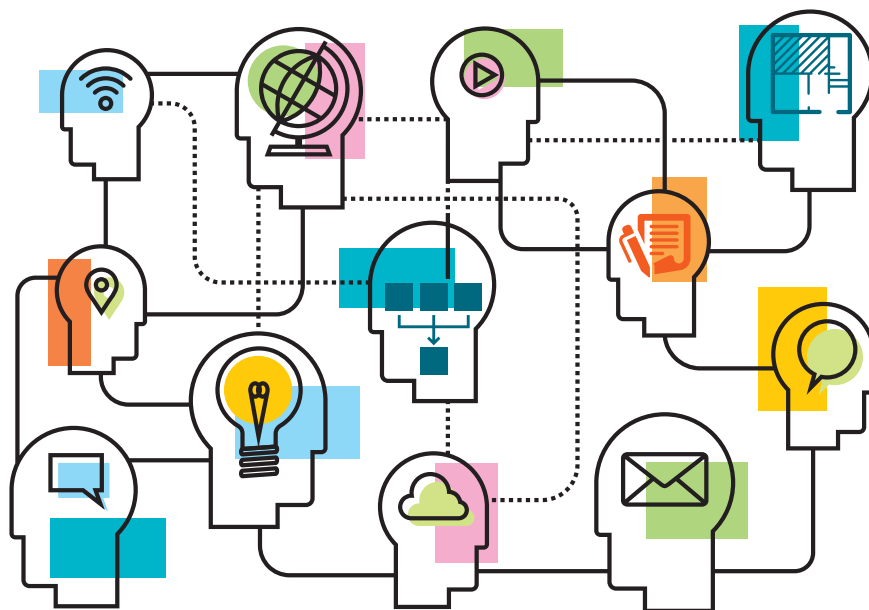
- On larger projects with bigger risks, make available a senior-level individual with corresponding approval authority for the increased dollar value of the issues at hand. Don't wait for decisions to flow up in the normal mode.
- Make clear what decision-making authority the CM for fee/program manager will have with a well-defined handoff to an owner representative for decisions.
- Ensure that the CM for fee/program manager understands its role to help resolve problems for the good of the project, and on behalf of all parties, versus simply applying a strict interpretation of potentially "gray area" requirements.
- Do not abdicate all decision-making to the CM for fee/program manager and have an owner representative available on a daily/weekly basis to make appropriate decisions.
- Write contracts that align contractor objectives with A/E objectives so that all parties are working toward a common goal. Ensure contract language is results-oriented versus prescriptive in regard to methods, materials, technical concepts, etc.
- Be ready to make a deal and do not defer issues to the end of the project. Remember that issues are not like fine wine; they do not get better with age.

Contractor Considerations

Pursue projects that are within the organization's range of experience or hire an individual with the experience in that type of work and make sure he or she is a good cultural fit.

- Assess the owner's motivations for project delivery system choice and include them in an overall risk assessment. A key question becomes: Has the owner just compressed the schedule but with the same decision-making processes?
- Develop a comprehensive risk register that identifies both insurable and uninsurable risks and mitigate strategies for each. The thought exercise a project team goes through in developing a risk register is just as important as the output.
- On larger, more complex projects, commit an executive-level resource at the outset until strategies for project risk mitigation have been developed and implemented. Avoid assigning a junior project manager who may take on more than he or she can handle and who may fail to report issues upstream (intentionally or not).

- Make sure you completely understand requirements or other bidding assumptions, particularly on design-build projects. Of the projects studied, 25% fell victim to this. At times, even the owner will not understand the true impact of some of the requirements written into the contract.
- Ensure proper staffing at the beginning of the project and at critical project phases (or in critical project disciplines). Again, of the project studied, 25% fell victim to this. In particular, staffing for change orders must be closely monitored so that the contractor keeps pace with responding to and pricing changes. Playing catch-up on the backend of a project—when resources should be focused on commissioning and project turnover—will place additional stress on all team members.
- Choose your joint venture partners wisely and work diligently to create internal alignment within the team on all critical processes. Ensure organizational cross-fertilization across the disciplines to avoid silos of work responsibility or chasms between the field and office staff.
- Make sure there are formal internal hand-off meeting(s) between estimating/preconstruction and project management/field operations. This should include subcontractor involvement in planning the work.



A/E Considerations

Although A/Es take their cues directly from the owner or from the contractor (in design-build), they are not exempt from their fair share of the responsibility in causal factors on stressed projects—or their responsiveness and willingness to work with all parties to turn things around. A/Es can proactively:

- Fully understand the owner's intentions. Work with the owner to establish an adequate budget for the actual design and construction administration phases to do the job properly. Negotiate hard to ensure that owner changes, betterments, on-site presence and adequate resources are provided for timely and efficient review of contractor RFIs and submittals.
- Set clear expectations regarding the level of design that can be produced for the budget provided.
- Be mindful of the schedule and design production's impact on it.
- Work with the team to establish clear expectations for RFIs and submittals and develop noncontractual targets for information turnaround that will support the schedule, particularly on critical items.
- Be open to contractor-generated ideas that will preserve/enhance quality and create financial savings (e.g., materials or constructability).
- Engage and work with the contractor to improve the design per constructability input and avoid an overly defensive posture on the documents.
- Develop big-picture solutions with the contractor to achieve the owner's objectives.



How Key Processes Can Trip Up Project Success

According to our study, 33% of projects had a poor performing submittal process that would not meet the schedule needs. This proves the critical importance of a good, viable submittal process to a project's overall success. All involved parties are responsible for a piece of this process, as the problems directly revolve around how well the parties are communicating before a submittal enters the system. This includes timeliness and the level of submittal completeness, types of comments, definitions of what will be returned as "approved as noted," "revised and resubmitted," and so forth.

A critical metric to monitor in this process is the number of cycles (back and forth) it takes to gain approval and the percentage of approvals within each cycle. The objective is to alter communication processes so the "ping-pong" effect is reduced, approval percentages are improved by cycle, and approvals are gained in fewer cycle times. Meeting schedule needs should trump contractual commitments on review times.

If every submittal/RFI takes up the maximum review time (as defined by the contract), then all parties know the team will never meet the schedule. On stressed projects, first-cycle approvals are only at 25-50% and sometimes require as many as five cycles to gain approval. Given that contractors typically only have one review cycle in their bids, there is an immediate impact on the schedule and budget. A best-in-class project had an 85% approval rate on the first cycle. To achieve this level of project success, contractors and owners/agencies should focus on the following:

- Develop a reliable submittal schedule that the owner/reviewers can use to align resources with the schedule.
- Confirm submittal requirements by actively pushing for pre-submittal meetings/conference calls with reviewers.
- Know the organization's review cycles and third party's review cycles and build those into the initial schedule that goes into the RFP. Assume multiple cycles will be needed.
- Invest to ensure reviewers are co-located/available to answer the inevitable questions that will arise during the submittals and during the construction phase to keep the project moving. Contractors can also do this on design-build projects.

Project Closeout

Project closeout is another area where even the best-laid plans begin to unravel. In fact, 30% of the projects studied by FMI struggled with project closeout, including start-up, commissioning, O&M and training. Some of this can be attributed to contractors who don't fully understand what will be required to gain substantial completion when bidding the project. This struggle point may also involve projects that fall behind schedule early. In these situations, while trying to catch up, the team neglects closeout processes and responsibilities until it may be too late in the game. Only then does the team face the reality of what it will really take to get to the finish line. This new information frequently pushes the schedule out further.

The good news is that the sooner a cross-organizational team begins planning closeout, the better the outcome. An active commissioning and closeout team (sometimes called a “red-zone” team) should be established no later than when the project is 50% complete. This team should report to senior management on progress achieved and open issues.

Defining the acceptance process among all stakeholders and defining substantial completion early will help determine how the schedule will unfold. On design-build projects, this should begin in the design phase and be incorporated into the schedule. Contractors should plan to have a commissioning agent and other related personnel staffed early enough to get ahead of the game on O&M requirements, training plans and schedule training sessions.



Quality Assurance and Control

The QA/QC process correlates directly to project acceptance. In fact, FMI found that QA/QC problems existed on 30% of the stressed projects that we studied. For example, QA/QC issues on the traditional design-bid-build projects typically revolved around misalignment within the owner team between agency quality representatives and the CM for fee/program manager staff and third-party inspection team representatives.

This resulted in diverging opinions and direction to the contractor on what is acceptable, causing inevitable delays in closing out work.

On design-build, issues arise around the different roles assumed regarding oversight versus QC. On all projects where contractors/design-builders have a QC component of their contract, the most frequent complaints from owners were:

1. Contractors' QC processes are not catching quality issues and are relying on the owner team to do it for them.
2. Deficiencies, nonconformance and other issues are not addressed timely.
3. Contractors' paperwork responsibilities fall behind and are not timely.

When these issues are addressed early in the construction phase, it's easier to keep peace out in the field. Left unresolved, the tension will continue to build; when work is rejected, the schedule will be further delayed and cause even more stress for all participants.

In the conclusion of this article series, we'll explore some of the top strategies used to right existing projects that have turned for the worse, all while keeping executives focused on the relevant issues—allowing project staff to focus its energies on project completion.

For more information on FMI's partnering processes, please contact Bill Spragins at 303.398.7211.



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