

Construction 101: Understanding Risk Management

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It's no secret that construction is a complex industry. With many moving parts and heavy machinery, there are numerous potential risks around every corner. And we're not just talking about design issues. Everything from environmental concerns to labor shortages can impact the success of your project.

This is why construction risk management should be an essential part of your strategy. When you proactively identify risks, you can take steps to mitigate them so your project is completed on time and within budget.

Read on to learn more about construction risk management, including how you can develop and implement a risk management plan for your next project.

WHAT'S CONSTRUCTION RISK MANAGEMENT?

Risk management in construction is a critical process for ensuring the success of construction projects. By identifying and analyzing potential risks, estimators and project managers can better prepare for any issues that may arise during a build.

Risk management for construction projects is essential and even moreso for complex projects that involve many stakeholders. Every stakeholder involved in a project may have different priorities, objectives, and thresholds for risk. Proper risk management can bridge the gap between stakeholders.

UNDERSTANDING RISKS IN CONSTRUCTION PROJECTS

Risk management is essential in ensuring that a project stays on budget and you're able to minimize financial risks.



Implementing effective project management strategies throughout the entire process can give successful results.

Construction project risks can be at a project level or a business level. These risks can include:

Financial risks

Construction projects require a significant financial investment with a certain level of unavoidable risk. Market fluctuations, interest rate changes, delays in project completion, and other factors all significantly impact the project's profitability.

Strategic risks

Poor design decisions can have disastrous consequences for construction projects. Design errors or omissions can lead to costly construction defects or delays, resulting in additional

costs and schedule delays. Scope creep is a major risk that project managers must balance and mitigate with construction projects.

Performance risks

Delays in completion due to material shortages or labor disputes can be costly and time-consuming. Scheduling is a critical component of any project, and schedule delays can significantly impact the success or failure of a project.

Construction sites require strict safety protocols to reduce the risk of injury or death. Falls from high places, electrical hazards, and accidents involving heavy equipment or machinery are all possible in these hazardous environments.

External risks

External risks in the construction industry are common, which is why you need to put robust protocols in place should a construction site face them. Extreme temperatures, heavy rains, and severe storms can cause delays or complete stops in the construction process.

With construction projects being subject to various regulations, ensure regulatory compliance for success. Failure to adhere to these requirements can lead to failed inspections, hefty fines, and legal action.

HOW TO DEVELOP A CONSTRUCTION RISK MANAGEMENT PLAN

Risk management in construction is a multi-step process and can have these outcomes:

1. Risk avoidance: You're avoiding the risk entirely with a protocol in place.
2. Risk mitigation: You've created a risk response plan to reduce the impact of risk.
3. Risk transfer: If possible, you're pushing the risk to another party to handle.
4. Risk acceptance: You're making provisions to accommodate the risk.

When developing your construction risk management plan, you need to include these steps:

Identify potential risks

Identifying potential risks associated with the project is the

first step in creating a risk management plan that can help ensure the successful completion of the project. Project documents can be reviewed to identify potential risks such as cost overruns, safety hazards, timeline delays, etc.

Assess likelihoods and impacts of risks

By assessing the likelihood and impact of potential risks, organizations can identify areas of vulnerability and take appropriate measures to mitigate them. A risk matrix is used in this step of developing a risk management plan.

Develop risk mitigation strategies

To mitigate risks, it's essential to develop strategies that address them promptly and effectively. This may involve changes to the project plan, additional safety measures, or financial contingency planning. The goal is to reduce the probability of those risks occurring and minimize the harm they may cause if they do occur.

Monitor and review risks

Keeping a close eye on risks during the entire project duration and referring back to and updating the risk management plan is essential. As the project evolves, new dangers may arise, in which case strategies to reduce them must be adjusted accordingly.

To maintain a project's timeline and reduce the occurrence of unforeseen circumstances, regular risk assessment and monitoring should be conducted along with periodic reviews of the risk management plan.

Document and report the risks

Documentation should include a list of risks, evaluation and assessment of each, and measures taken to avoid them. This also allows for proactive adjustments to the risk management plan quickly if changes are required.

RISK MANAGEMENT BEST PRACTICES

These are some best practices for effective construction risk management:


1. Keep all stakeholders informed: A single location for communication between project stakeholders makes it easy to keep all stakeholders informed of potential risks to mitigate them whenever possible.

2. Keep all documents updated and within reach: Accessing important documentation is vital to keeping everyone on the same page. Cloud-based solutions can benefit you the most here, so your documents and reports can be accessed from anywhere at anytime.
3. Use data visualization: Gantt charts, timelines, tables, and charts make it easier to digest complex information quickly. Construction risk management software can make it easier to communicate complex data.
4. Start as early as possible: Early detection of risks can help to take preventive measures, thus avoiding complications and ensuring smoother execution of the project.

CHALLENGES IN CONSTRUCTION RISK MANAGEMENT

All types of risks and challenges can come up during a project. You can learn how effective project management can help you improve your risk management efficiency. Here are five key challenges and construction risks and how you can tackle them:

1. **Poor project direction:** With clear goals, it's easier to get things done efficiently. It is essential to set clear objectives for all team members to keep them on task and keep progress moving forward.
2. **Ineffective communication:** Poor communication can be detrimental as it makes completing necessary tasks on time challenging and can lead to unnecessary issues. Therefore, effective communication is crucial for the team to stay organized and on top of their work.
3. **Unrealistic expectations:** Clients and stakeholders may have requirements that seem difficult to fulfill. This could include quick turnaround times or a tight budget, which may present challenges. Be sure that clients have clear expectations up front.
4. **Poor risk management procedures:** Contingency plans are essential for risk management, as they provide a framework for decision-making and some room for maneuvering unexpected situations.
5. **Delayed payments:** Money management for construction projects is crucial. People need to get paid, and materials need to be purchased. With the right software and effective workflow, construction companies ensure their cash flow

can be more easily managed. It allows for detailed progress documentation and sharing, which leads to quicker payments received from project owners to be passed on to subcontractors and suppliers. This keeps construction progressing and should any issues arise, they can be addressed quickly before cashflow is impacted. 



About the Article

The [Builder Blog by RedTeam](#) was launched in 2023. It serves as a resource for construction professionals with industry insights, in-depth articles about solutions, and helpful customer stories. From best practices to workflow guides, the blog builds on RedTeam's expertise and knowledge of the industry to help create a better tomorrow for everyone in construction. You can learn more about RedTeam at redteam.com.

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